

THE INDIAN OCEAN TRADE IN ANTIQUITY

POLITICAL, CULTURAL AND ECONOMIC IMPACTS

Edited by
Matthew Adam Cobb



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The Indian Ocean Trade in Antiquity

The period from the death of Alexander the Great to the rise of the Islam (c. late fourth century BCE to seventh century CE) saw a significant growth in economic, diplomatic and cultural exchange between various civilisations in Africa, Europe and Asia. This was in large part thanks to the Indian Ocean trade. Peoples living in the Roman Empire, Parthia, India and South East Asia increasingly had access to exotic foreign products, while the lands from which they derived, and the peoples inhabiting these lands, also captured the imagination, finding expression in a number of literary and poetic works.

The Indian Ocean Trade in Antiquity provides a range of chapters that explore the economic, political and cultural impact of this trade on these diverse societies, written by international experts working in the fields of Classics, Archaeology, South Asian studies, Near Eastern studies and Art History. The three major themes of the book are the development of this trade, how consumption and exchange impacted on societal developments, and how the Indian Ocean trade influenced the literary creations of Graeco-Roman and Indian authors.

This volume will be of interest not only to academics and students of antiquity, but also to scholars working on later periods of Indian Ocean history who will find this work a valuable resource.

Matthew Adam Cobb is a lecturer in ancient history at the University of Wales Trinity Saint David, UK, and his main area of research focuses on Graeco-Roman participation in the Indian Ocean trade, as well as cross-cultural engagement between the West and East in antiquity.



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The Indian Ocean Trade in Antiquity

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Economic Impacts

Edited by Matthew Adam Cobb

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1 Introduction

The Indian Ocean in Antiquity and global history

Matthew Adam Cobb

Introduction

Through a series of contributions from ten scholars, this book examines the impact of the Indian Ocean trade on various societies in the age of Antiquity – delimited in this volume from 300 BCE to 700 CE. This includes an analysis of the development of networks of exchange, nodal points and cross-cultural interactions, as well as an investigation of the wider political, cultural and economic effects of the consequent movement of goods, peoples and ideas. Emerging from a research panel held at Dublin 22–25 June 2016, this book aims to facilitate interdisciplinary exchanges among scholars working in a range of fields (Classics, South Asian Studies, Near Eastern Studies) and who utilise various methodological approaches (textual and historical analysis, archaeology, art history, among others). The desired outcome of this collaboration is for these essays to provide fresh perspectives for scholars interested in the Indian Ocean, but who are used to working in the traditional silos of their discipline.¹ In order to more fully appreciate the various inter-connections of the Indian Ocean in Antiquity, and its wider cultural impacts, researchers must be willing to work collaboratively. Even the most industrious polymath could not hope to master every conceivable field of study or every item of evidence that might be applicable.

We feel that this book is timely in light of the increasing volume of new archaeological and written evidence that is being unearthed at various international sites. In south-western India, ongoing excavations at Pattanam (probably ancient Muziris) have revealed a whole range of material showing trade links with regions such as the Mediterranean, western Asia and China.² In East Africa, the site of ancient Adulis has been subject to recent Eritro-British and Eritro-Italian excavations, while a range relevant of material has also be discovered in recent decades at the southern Arabian sites of Qana' or Qāni (near modern Bir 'Alī, Yemen) and Sumhuram (modern Khor Rori, Oman).³ These are but a few germane examples. This expanding corpus of new evidence allows for new questions to be asked, and old theories to be re-examined.

This book is also timely given the rising popularity of Indian Ocean Studies over the last several decades.⁴ Unsurprisingly, given the comparatively greater volumes of evidence, scholars have tended to focus on the Medieval, Early Modern and

Modern periods.⁵ However, as has just been noted, much new material relating to Antiquity is coming to light making this an ideal time to expand collaborative studies on this period. A number of useful volumes have made a start, but more work needs to be done.⁶ The expanded focus on Antiquity may be of particular value to those interested in the ‘*longue durée*’ perspective popularised by Braudel.⁷ Nevertheless, we should be cautious about simply integrating the developments of Antiquity into later periods as if it were part of a continuous, uninterrupted process towards modern globalisation.⁸ Even within the period under examination, developments were uneven both chronologically and geographically; expansions and contractions in the level of contact, exchange, and knowledge took place.

Many studies looking at interconnections across vast geographic areas often focus on economic matters.⁹ While this book is concerned with the nature of trade in the Indian Ocean, be it in terms of its organisation, funding, and the types of commodities exchanged, it also places important emphasis on the tangible cultural developments which resulted. This is not only in areas such as consumption habits, but also in other manifestations such as literary and artistic productions. As a result, the chapters in this book are split into three parts. The first focuses on the development of trade networks and nodes, the operation of the trade, and its participants. The second explores the social impact of the consumption of Indian Ocean goods, as well as how this demand influences developments within particular societies. Finally, the third part concentrates on the literary developments that can be linked (directly or indirectly) to the Indian Ocean trade in Antiquity. The content of the chapters will be outlined in more detailed at the end of this chapter.

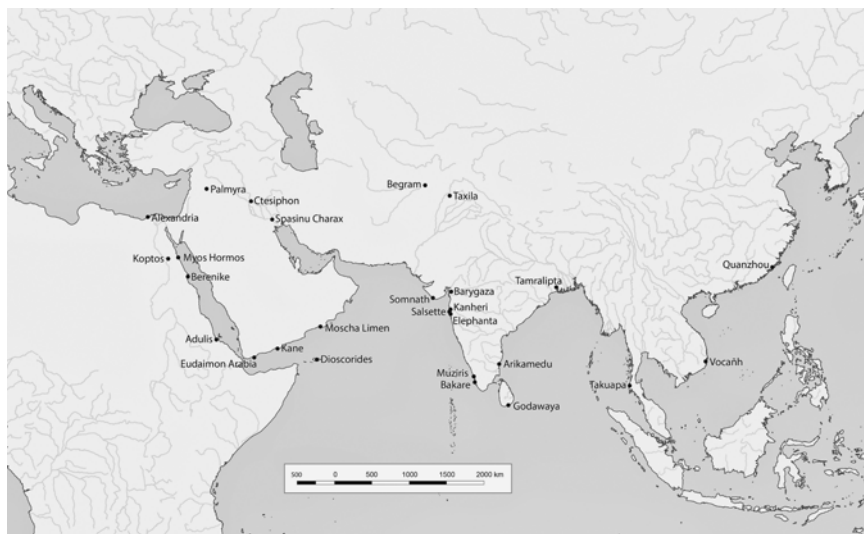


Figure 1.1 Map of the Indian Ocean world (courtesy of Matthew Adam Cobb; drawn by Martin Crampin)

The chronological parameters

It might be legitimately asked, why the period 300 BCE to 700 CE? A question that is all the more pertinent given that we are dealing with various civilisations in the wider Afro-Eurasian world that were linked in some capacity by trade and travel across the Indian Ocean. Most historians who work on particular ‘ethnic groups’, communities, city-states, confederations, kingdoms, or empires have their own periodisations. The boundaries of these are usually demarcated by specific political or military events. An attempt could be made to highlight a series of parallel political-military developments for the start and the end of the period we are examining. In the eastern Mediterranean, Middle East and Central Asia, new Graeco-Macedonian empires were born of the turmoil resulting from the death of Alexander the Great.¹⁰ Around the same time (end of the fourth century BCE), and following on from this same turmoil, Chandragupta Maurya established an empire that would grow during the course of the third century BCE to cover much of the Indian Subcontinent.¹¹ Meanwhile, in East Asia, the Han Dynasty (206 BCE–220 CE) in northern China took over from the Qin (221–207/6 BCE), and in the nearby grasslands the nomadic Xiongnu established a steppe empire.¹² At the end of our period, there is no doubting the major impact that the rise of Islam had from the seventh century CE onwards.¹³

Simply pointing to these political-military events alone, however, would be rather unsatisfactory. Not least because various polities rose and fell within this period of study. Moreover, while large and powerful kingdoms or empires can be important for creating stable and prosperous conditions that allow economic and cultural exchanges to flourish, it would be a mistake to assume that the Indian Ocean trade was completely dependent upon their existence – for example, as Ray notes in her chapter, small-scale fishing communities were important in the development of seafaring traditions in the Indian Ocean. Instead, these political-military events need to be understood alongside other developments. Perhaps the most important reasons for considering the period 300 BCE–700 CE as a unit are the growth in cross-oceanic voyaging, the unprecedented volume of goods being moved, and the clear impacts these events had on cultural developments in many different societies.

In terms of the growth of cross-oceanic voyaging, the period from the late second century BCE to the first century CE would see a massive upswing in the number of Mediterranean merchants sailing to various ports along the coast of East Africa, southern Arabia and India.¹⁴ By the early centuries of the first millennium CE, it is clear that merchants from south-east India were sailing in the Bay of Bengal to reach the Ganges region and South East Asia.¹⁵ There is abundant evidence from the Hoq Cave inscriptions on Socotra for the presence of north-western and western Indian merchants (notably around 200–500 CE). And if the accounts of Agatharchides and Cosmas are to be believed, this island may well have been an important nodal point for exchange as far back as the last few centuries of the first millennium BCE.¹⁶ The presence of Rouletted Ware and Paddle-impressed Ware at Berenike (Red Sea coast of Egypt), Arikamedu (South-east India), and Khor Rori (southern Arabian Peninsula) also show early links

between these regions at the end of the first millennium BCE and beginning of the first millennium CE.¹⁷

A hitherto unprecedented volume of goods were being moved via Indian Ocean trade networks in the early centuries of the first millennium CE. Unfortunately, there is a relative dearth of statistical data, but the material finds from various international sites and the impressionistic literary evidence leave no doubt that this was the case.¹⁸ To be sure, there were other largely land-based routes, most notably the so-called ‘Silk Road(s)’, that enabled the flow of goods across the wider Afro-Eurasian region. However, while their significance should not be downplayed, the Indian Ocean routes allowed for a greater variety of goods to be moved faster, more economically, and in greater amounts.¹⁹ The cultural impact that the acquisition of many of these goods had on a number of different societies is manifestly apparent. Examples range from the use of Roman coins in Indian jewellery and the imitation of Roman crafted items, the adoption of south-east Indian bead-working techniques in South East Asia, to the major social impact of Eastern spices on Roman culinary, medicinal, religious and funerary practices.²⁰

In addition to the adoption and adaptation of foreign goods and technical skills, the Indian Ocean trade seems to have directly and indirectly impinged on the imagination of a number of different societies in the Afro-Eurasian world during this period. Yavanas, be they Greek-speaking peoples from the eastern Mediterranean or more broadly people from western Asia, appear in Tamil Sangam literature as traders, mercenaries and craftsmen (c. 300 BCE–500 CE).²¹ The people of Da Qin, generally connected to the Roman Empire, appear in Chinese court annals. Initially cropping up in connection to a failed attempt to reach them by Gan Ying (97 CE), it is reported that ‘embassies’ from this land reached China in 166 and 226 BCE.²² Despite the limited contact with these people, Da Qin, nevertheless, was woven into Chinese conceptions of the distant West. Notably this land was located near to the Baiyu Shan or the White Jade Mountains, where Xi Wangmu (Queen-Mother of the West) was thought to reside.²³ Conversely, Sommer argues that despite the expanded geographical knowledge of the world brought about by the Indian Ocean trade, this did not alter Graeco-Roman conceptions of the *oikoumenē*.²⁴ There may be some truth to this, inasmuch as Roman ideas about places like India were heavily influenced by earlier Classical and Hellenistic literary accounts.²⁵ That said, there is no doubt that the Indian Ocean trade also impinged on the imagination of many Greek and Roman writers, as Sánchez Hernández demonstrates in his overview of the ancient novels.

From the review just undertaken, it is clear that there is ample reason to regard the period 300 BCE–700 CE as a logical demarcation.²⁶ This demarcation should, of course, be regarded as nebulous and permeable, as should any periodisation, especially ones defined by economic and cultural processes. Nevertheless, there is no doubting the profound developments that took place within this timeframe.

Theories and approaches

Having justified our chronological parameters, it is worth briefly considering the present book within the context of wider theoretical debates. A number of

frameworks have been utilised for the study of long-distance (often transcontinental) interactions and cross-cultural exchange, some quite recent, others long-standing. These include universal history, world history, global history, transnational history, world-systems theory and the concept of globalisation(s) – this latter concept being dealt with more fully in the next section. Many of these approaches overlap, and often the terms can be employed interchangeably, even if there are attempts to clarify distinctions.²⁷ For example, Conrad distinguishes between global history and world history, characterising the former as more modern and sophisticated.²⁸ He makes the case that global historical approaches can overcome the compartmentalisation between national and world histories, since it takes ‘the circulation of peoples, things and ideas as its key subjects’.²⁹ Other attempts to impose distinctions, such as that between universal and world history by Karl Lamprecht, appear less successful.³⁰

The various shades of meaning can also be identified in the other theories highlighted. Transnational history tends to focus on specific societies, but with a mind to the way they were situated in the world and how various ‘entanglements’ shaped them. Sometimes used to avoid the terminology of global history, it nevertheless shares with the latter a desire to avoid compartmentalising history and simply explaining phenomena as purely the result of internal (hermetic) developments within a society.³¹ World-systems theory, instead of taking individual cases and nations as its starting point, focuses on large (regional) blocks, specifically world-economies and world-empires; the latter focusing on political integration, the former on integration of markets, with less of a focus on social and cultural dynamics.³² These blocks were often divided into models of core, semi-periphery, and periphery.³³

With regard to this book, it is possible that the chapters contained within could be implicitly associated with some of the theories outlined. The chapters by Mitchell and Palone may be regarded as employing comparative approaches, and the chapter by Sánchez Hernández could be associated with transnational theory. While either transnational or global history may appear more appropriate definitions for the chapters of Cobb, McLaughlin, Gregoratti, Ray, Schneider, Asher, and De Romanis. However, we would not see ourselves as bound by specific frameworks. No attempt has been made to impose a consistent (and restrictive) theoretical approach, or, for that matter, to prescribe a specific set of methodologies. This is not because we believe any of these theories lack value; they can be helpful in framing debates. But rather because it would be counterproductive in the context of this book. As already outlined, this work is cross-disciplinary and collaborative. The heterogeneity of perspectives from those working in different fields is a great strength, one which allows for a much more holistic appreciation of the various facets of the Indian Ocean trade in Antiquity.

Globalisation and the ancient Indian Ocean trade

Despite not adopting a singular theoretical approach in this book, it is worth giving further consideration to perhaps the most controversial of all the theories noted,

namely globalisation.³⁴ Some scholars have recently attempted to apply this concept to the study of the ancient world, including in connection to Bronze Age Uruk-Warka and to the Roman Empire.³⁵ At first impression, this may appear unsettling given the modern baggage that comes with the term ‘globalisation’, which often brings to mind notions of rapid communication (via mediums such as the Internet), fast transportation (compared to most of human history) and, as some suppose, cultural homogenisation (although this is contested) and the spread of capitalist consumer culture.³⁶ Due to these associations some express a degree of scepticism about its applicability to much earlier periods of human history.³⁷ There has been much contentious debate about how far back in history the concept can be pushed, some seeing it as an entirely modern phenomenon, others seeing its genesis around the Early Modern period. At the furthest end, some regard this concept as being applicable to many of the earliest human societies.³⁸

If we strip away the associations with modern technology, capitalism and rapidity (modern transport infrastructure), but instead focus on the underlying concepts of sustained long-distance connections (travel and trade) and the array of economic and cultural impacts on specific societies, then there may be a sense in which this (redefined) concept of globalisation can apply to the ancient world.³⁹ With regard to the Indian Ocean in Antiquity, attempts have already been made to apply the notion of proto-globalisation. This has most notably been done by Seland who advocates the term ‘oikoumenisation’.⁴⁰ It may be worth considering the idea of the Indian Ocean trade as a manifestation of (proto-) globalisation by briefly applying the eight criteria proposed by Jennings as indicators of this phenomenon. The eight criteria consist of time-space compression, de-territorialisation, standardisation, unevenness, cultural homogenisation, cultural heterogeneity, re-embedding local culture, and vulnerability.⁴¹

Applying these criteria to the Indian Ocean in the ancient world is complicated by the fact that we are dealing with a range of distinct societies with varying levels of integration into the trade networks of this body of water. Some of these criteria are more obviously applicable, such as ‘time-space compression’, where the increased use of the winds and currents influenced by the annual monsoons (see above) enabled sustained year-on-year trade by the beginning of the first millennium CE. ‘De-territorialisation’, that is the movement of goods, products, and ideas across different regions connected via the Indian Ocean is also easily applicable. Likewise, ‘re-embedding local culture’ and ‘vulnerability’ might also be identified in the anxieties expressed about the consumption of eastern goods in Roman society (in moral and financial terms).⁴² However, whether some of the other criteria can be so easily applied is open to question – notably with the concept of ‘standardisation’. Moreover, how much any of these criteria apply obviously depends on the societies under examination. Did the Roman Empire experience more ‘vulnerability’ than the polities of the Tamilakam? Was Han China less exposed to ‘de-territorialisation’ as a result of the Indian Ocean trade than societies in South East Asia? Ultimately, this book is not primarily concerned with proving the applicability of the concept of globalisation to the Indian Ocean world of Antiquity, nor of specifically validating Jennings’s criteria. However, the issues

addressed in the following chapters may prove informative for those who wish to explore these concepts in more detail.

Individual contributions

This book is split into three major thematic sections. Part 1 deals with the issues of the development of trade networks and geographic knowledge in the Indian Ocean. In the first chapter of this section (Chapter 2), Cobb explores the expansion of commercial exchange between the Mediterranean and the Indian Ocean worlds during the course of the Ptolemaic (late fourth century to 31/30 BCE) and Augustan (30 BCE–14 CE) periods. In particular, Cobb examines the degree of continuity and change brought about by the Roman annexation of Egypt, especially with regards to networks, routes, infrastructure, administration, and diplomatic and military policy. He argues that many developments pertaining to Mediterranean participation in the Indian Ocean trade during the early Imperial period need to be understood within the context of earlier Ptolemaic precedents. This is most apparent with regard to the development of routes and networks of exchange. However, it is noted that a number of important developments took place in the decades immediately following the Roman annexation of Egypt, especially concerning construction activity at the Red Sea ports.

In the following chapter (Chapter 3), Gregoratti explores the role of the Characenian thalassocratic kingdom in the Persian Gulf and its facilitation of commercial links between the Mesopotamian world and lands such as Southern Arabia and India. In particular, the role of Palmyrene merchants in this trading activity is considered. His argument is that the Parthian Empire should not be seen as a mere facilitator of western (i.e. Palmyrene) trading ventures, but that this trade activity should be more appropriately understood in terms of synergistic cooperation.

The geographic focus progresses even further east in Chapter 4. Here, Ray takes a bottom-up approach. Reviewing the nautical traditions of South and South East Asia, she gives particular focus to the important role that fishing communities played in the development of maritime activity in the Indian Ocean. This is explored through a range of evidence, including literary texts like the *Periplus* and a few examples of excavated boats, but also ethnographic data that has been recorded in detail, iconographic representations, and living traditions. Her premise is that fishing and sailing communities formed the foundation of maritime activity in the Indian Ocean and provided a continuum to seafaring throughout history, though no doubt their fortunes fluctuated over time. Chapter 5 continues the focus on India, but this time from a ‘Western’ perspective. Specifically, De Romanis discusses the information about the west coast of India contained in the text known as the *Periplus Maris Erythraei* or *Periplus of the Erythraean Sea*. He examines the internal differences between different sections of the text, especially the comprehensiveness of the information contained, and juxtaposes this information with other Roman period geographical texts, such as Pliny the Elder’s *Natural History* and Claudius Ptolemy’s *Geography*.

In Part 2, the theme shifts to how the movement of goods and ideas impacted on cultural and economic developments within particular societies. In Chapter 6, McLaughlin considers how important the *tetarte* (a quarter tax on goods imported from the East) was for the functioning of the Roman state's finances. In Chapter 7, the focus shifts to private consumption in the Roman world. Here, Schneider explores the Roman demand for imported pearls during the first century BCE to the late-second century CE. He investigates the locations from which these pearls were acquired, patterns of demand and supply, and how pearls were used as part of visible expressions of social status within Roman society. The popularity of pearls spread down the social scale, with Pliny claiming that even the 'poor' clamoured for them. The social impact of this product was such that it manifested deep anxiety among some conservative moralists within Roman society.

Asher concludes Part 2 with his chapter (Chapter 8) on the existence of trade links between India and other regions of the Indian Ocean world, especially in South East Asia. In particular, he considered how commercial links and the potential presence of Indian diaspora influenced religious, literary and architectural developments in South East Asia in the latter half of the first millennium CE. He argues that despite some of the prohibitions expressed in texts like the Dharma Sutra of Baudhayana which claim a loss of caste for those who travel by sea, many early Hindus, alongside Buddhists and (from the seventh century onwards) Muslims, did engage in trading activity across the Indian Ocean. Asher notes that many diaspora communities and their associated religious sites probably existed in this early period, even if the evidence is more limited for this period than for the early centuries of the second millennium CE.

The final section of the book (Part 3) considers the extent to which the Indian Ocean trade influenced intellectual exchange between different cultures and how this trade impacted on the literary imagination of novelists from the Graeco-Roman world. In Chapter 9, Mitchell explores part of the intellectual and cultural exchange between Greece and India in Antiquity by examining the repeated appearance of a myth about the creation of the universe from an egg. She shows that while these ideas appear in both Greek and Indian cultures prior to the major phase of Indian Ocean trade in Antiquity (300 BCE–700 CE), literary texts produced after direct contact (*Vishnu Purana*, *Matsya Purana*, *Laws of Manu*, the *Orphic theogonies*) include nearly identical narratives about the egg. Thus it is clear that alongside the trade in goods between the Graeco-Roman world and India, there were also intellectual and cultural exchanges, including the transmission of ideas about the origins and nature of the universe and its chronology.

The next two chapters explore the genre of the ancient novel. Sánchez Hernández provides an overview of how the ancient Greek and Roman novelists interwove into their narratives a mixture of Indographic discourses from the Classical and Hellenistic periods with contemporary mercantile information of the early centuries of the first millennium CE (Chapter 10). He observes that in the case of the more 'realistic' Roman novels, conceptions of the East focus first and foremost around the array of exotic products (pepper, nard, silk) that were increasingly available in the Mediterranean world as a result of the Indian Ocean trade. Associations with

decadence and excess attach to the descriptions of these eastern products are often connected allegorically to the sexual ordeals endured by the protagonists and the perils of their journey in these works. By contrast, Sánchez Hernández notes that the Greek novels are more ‘idealistic’. They present plots that include travels in Egypt and the Levant where encounters with people coming from far-off countries (merchants, sages, etc.) were possible, and they also hint at the unbelievable prosperity of exotic destinations by means of their repeated reference to eastern goods.

Palone takes a more comparative focus in his Chapter 11. He considers similarities between the genres of the ancient Greek and the Indian novel (*kathā*). Specifically, he explores the ‘embedded vertical narratives’ (tales within tales – metadiegesis) which appear in both western and Indian literary traditions. A number of striking parallels can be observed. Firstly, the layers of tales within tales do not go beyond the fifth layer of depth: a principle that can be called the ‘narrative sustainability’. Secondly, in both literary cultures, the narrators of the different layers of the embedded tales speak in the first person, referring first-hand to what they have experienced. The complexity of the structure, and the crossed interplay between narrators and narratees of the different layers, need the direction and the overview of an authorial instance; therefore, this narrative structure cannot be the result of superficial contacts only among merchants, but needed a literary mediation, with translations and a deep comprehension. The surviving ancient Greek novels and the *kathā* can attest to an area of commercial but also cultural exchange (an Indo-Greek *koinè*), which had begun after the conquest of Alexander the Great and continued along the merchants’ maritime routes between India and Egypt.

Notes

- 1 For the need to collaborate and not get closed-off by disciplinary boundaries see Moorthy and Jamal 2010b: 17; Jennings (2011): 5; Northrop (2012b): 8.
- 2 For more detail see Cherian et al (2009); Cherian (2015); Tomber (2015).
- 3 For Adulis see Peacock and Blue (2007); and Zazzaro et al. (2015). For Qana’ see Sedov (1996); and Salles and Sedov (2010). For Sumhuram see Avanzini (2008) and (2015).
- 4 For an excellent survey of work done in this area see Vink (2007).
- 5 These are, of course, quite Eurocentric terms, but are used here for convenience and familiarity.
- 6 Some good collaborative studies on this era of Indian Ocean history have been produced. However, these volumes vary in their focus (both geographically and thematically) and their chronological scope; in the latter case, sometimes adopting a much broader chronological range. A good example of this is some of the proceedings published in connection to the Red Sea Project – see Starkey, Starkey, and Wilkinson (2007); and Agius et al. (2012). Other volumes have focused on specific thematic categories such as technology, trade organisation and types of evidence like numismatics (see for example Ray and Salles (1996)).
- 7 For a panoptic, long view with regards to Indian Ocean studies see Moorthy and Jamal 2010b: 9.
- 8 See Jennings (2011): 11–12, for a critique of grand unfolding narratives about the history of globalisation.

- 9 For this tendency to focus on economic history and the role of the state see Pitts and Versluys (2015b): 16. See also Conrad (2016): 48.
- 10 For the development of the Hellenistic dynasties see Shipley (2000).
- 11 For the Maurya see Thapar (2002).
- 12 Levi (2012): 322.
- 13 See Chaudhuri (1985) and (1990).
- 14 See Cobb forthcoming; and Casson (2004): 44–46. See also Fernández-Armesto (2004): 13–15, 26, on sailing in the Indian Ocean by pre-Islamic Arabians.
- 15 *Periplus* 60. See also Mitchiner (1991): 62–68; Hall (1991): 100; Glover (1996a): 150–151; Glover (1996b): 392; Chew (2015): 41–50.
- 16 See Strauch (2012); and (2016). Agatharchides 5.105a + b = (a) Phot. *Cod.* 250.103, 459b = (b) Diod. Sic. 3.47.8–9; Kosmas *Christian Topography* 3.178–79; see also *Periplus* 30–31.
- 17 Avanzini (2016): 117–118, 122.
- 18 For a discussion of this evidence see Manguin (1996); Hall (1999); Tomber (2008); Tomber (2015); McLaughlin (2010); Sidebotham (2011); Seland (2014); Chew (2015); Cobb (2015a) and (2015b); De Romanis and Maiuro (2015).
- 19 Fernández-Armesto with Sacks (2012): 311.
- 20 For the imitation of Roman goods and the use of coins in jewellery see Suresh (2004), and De Saxcé (2015). For the spreading of bead-working techniques see Francis (1991): 40; Francis (2004): 450–479, 502, 513–514; and Ramali et al. (2011). For the social significance of imported plant products in the Roman world see Sidebotham (2011): 249–251; and Cobb (2013). It is important to note, however, that the direct and indirect impact the Indian Ocean trade had on different cultures is certainly not the same as asserting that the Indian Ocean region itself has a ‘cultural unity’. On this latter point see Vink (2007): 44–45, who discusses the views of those who adopt a favourable and critical position. For our purposes, we do not seek to identify any ‘cultural unity’, but are more concerned with the variegated cultural impacts of the trade.
- 21 Ray (1988): 312; Ray (1994): 83–84.
- 22 *Hou Han Shu* 88; *Liang-Shu* 48; Leslie and Gardiner (1996): 15; Ball (2000): 135; Hoppál (2011).
- 23 *Weilüe* 10–12, 22; *Hou Hanshu* 88.11–12.
- 24 Sommer (2015): 181.
- 25 For this influence see Parker (2008); and Romm (1992).
- 26 A demarcation that has already received some acknowledgment in Indian Ocean historical studies – see Vink (2007): 55.
- 27 For the shades of difference and potential overlap of some of these theories see Conrad (2016): 37–61; also Mazlish (1993): 3–4.
- 28 Conrad asserts that older world histories tended to combine comparisons of civilisations, with attempts to find links between them, the latter characterised as a ‘process of diffusion.’ By contrast global history emphasises connections, and terms like exchange, intercourse, links, networks and flows – conveying ‘the fluidity and volatility with which interactions take place across borders.’ – Conrad (2016): 62–64. See also Grew (1993): 237–238, on the different approaches of world history and global history.
- 29 Conrad (2016): 5–6. By contrast some of the contributors in the volume edited by Northrop (2012a) appear to use the terms interchangeably.
- 30 Lamprecht cited in Kossok (1993): 94–95.
- 31 For a more fulsome discussion of transnational history see Conrad (2016): 44–48.
- 32 For a discussion of world-systems theory see Conrad (2016): 48–52. Also Frank and Gills (1993b): 5–11; and Wallerstein (1993): 292–296.
- 33 Jennings (2011): 10–13. In the Afro-Eurasian ‘world system’ of 1250–1350 CE, espoused by Abu-Lughod (1989: 352–573), she notes that there were no singular hegemonic core powers, but rather there were a series of core, peripheries, and semi-peripheries around the globe. For a critique of such models see McKeown (2012): 88.

- 34 On the problems of defining globalisation and adopting its terminology see Hopkins (2002c): 15–21.
- 35 For the Roman Empire see Pitts and Versluys (2015a); and for Uruk-Warsa see Jennings (2011).
- 36 Pitts and Versluys (2015b): 10. On the need to challenge the ‘rise of the west’ narrative in relation to globalisation see Hopkins (2002b): 2.
- 37 Morley (2015): 65–66.
- 38 Hopkins (2002b): 3–9, distinguishes archaic globalisation – pre-industrial and pre-nation state – from later proto-globalisation (1600–1800 CE) and modern globalisation (from 1800–1950 CE) – and finally post-colonial globalisation (1950s onwards); Bayly (2002): 47–68, suggests that ‘Archaic’ globalisation may have existed for millennia, but is particularly identifiable from the thirteenth to eighteenth centuries CE – proto-globalisation is regarded as occurring around 1750–1850 CE. As noted, many of the contributors of Pitts and Versluys regard it as being applicable to the Roman Empire, and Jennings suggests as far back as the Bronze Age with regards to Uruk-Warka.
- 39 On this see Jennings (2011). Pieterse (2015): 230, notes that economists often attempt to identify globalisation on the basis of the permanent existence of global trade, production that has an impact on all trading partners, and price convergences. But he argues instead that this is globality, not globalisation – the latter should be understood as a process through which this came about, not the condition itself. Ballantyne (2002): 133, notes that globalisation is ‘as much a state of mind as it is a series of financial transactions or shifts in technology than can be rendered in charts and graphs.’
- 40 Seland (2008). See also Seland (2010): 2, 18–20; Seland (2014): 386–387. For similar ideas on archaic globalisation see Fitzpatrick (2011): 28–31, 42–43; Schmitthenner (1979): 92–93, 103, 106; Smith (2009): 84–85.
- 41 Jennings (2011): 123–141. He provides the following examples/definitions 1) time-space compression (e.g. the introduction of the donkey, shrinking perceived space) – 2) de-territorialisation (foreign peoples, products, and ideas incorporated into a place) – 3) standardisation (e.g. building practices) – 4) unevenness (centres and peripheries, attempts to control or dominate resources) – 5) cultural homogenisation (the diffusion of a way of being; but flows between cultures always involve translation, adaptation, mutation, and indigenisation – it is about how people come into contact with widely shared ideas and products and make them their own) – 6) cultural heterogeneity (e.g. the development of hybrid identity, local variations of imported products) – 7) re-embedding local culture (protecting one’s culture against perceived threats and outside influences, reinventing local culture) – 8) vulnerability (fear of dependence on actions occurring elsewhere).
- 42 See Cobb (2013) and (2015a).

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Part 1

The western Indian Ocean

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2 From the Ptolemies to Augustus

Mediterranean integration into the Indian Ocean trade¹

Matthew Adam Cobb

In 30 BCE, the triumvir Octavian – the man who would later receive the honorific Augustus – annexed Egypt, an act which solidified Roman control of the Mediterranean. By directly controlling Egypt, the Roman state gained access to the Eastern Desert (with its rich mineral resources) and the Red Sea, and in doing so inaugurated the Roman phase of participation in the Indian Ocean trade. This periodisation of Ptolemaic and Roman offers a convenient separating point for modern scholars, but it also raises a question about the extent of continuity and change between the late Ptolemaic and Augustan periods. Did the Augustan period see a fundamental alteration in Mediterranean participation and integration into the Indian Ocean trade, or was it more a case of building upon what had already been developing during the Ptolemaic period?

There is little reason to doubt that by the first century CE the scale with which goods were being exchanged between the Mediterranean and Indian Ocean worlds had reached a high point, as had the level of direct participation by merchants from the Roman Empire. This is apparent from the greater volume of literary, archaeological and epigraphic evidence, and is unsurprising in light of the relative peace, prosperity and unity of the Mediterranean in the first and second centuries CE.² While some note that the Romans took over a functioning system, many scholars go further and argue that the nature of Roman involvement in the Indian Ocean trade was radically different from the preceding Ptolemaic period. It is suggested that the Roman period ushered in new trade routes and networks, new participating groups, and an influx of finance.³ Some scholars, such as Seland, connect Roman participation in the Indian Ocean to the development of an early form of proto-globalisation, or as he terms it ‘oikoumenisation’, which inaugurated new trading patterns as well as a greater scale of trade.⁴ Other scholars such as Tomber and Sidebotham have adopted the view that Mediterranean participation in this trade became more systematic, civilian and commercial than it had under the Ptolemies.⁵ A few have even asserted that the Ptolemaic government held a monopoly on the sale of eastern imports and that it was only in the Roman period that private commercial exchange started to develop.⁶

It is argued in this chapter that while there were certainly developments in the areas just outlined, the transition between the late Ptolemaic and Augustan periods should actually be seen as one of progression and expansion rather than radical

alteration. In particular, it is argued that the notion of a Ptolemaic monopoly on trade goods acquired via the Indian Ocean is based on doubtful evidence, and that private commercial trade, both direct and indirect, with East Africa, Southern Arabia, and India had already developed prior to the Augustan annexation of Egypt. It is also clear that many of the routes across the Eastern Desert, and facilities like the waystations and ports on the Red Sea coast, had their origins in the Ptolemaic period. This is not to downplay the significant developments that took place in the Augustan period and first century CE. It is apparent that a large amount of construction activity took place at the port of Myos Hormos (and to some extent Berenike), no doubt as a consequence of the increasing levels of trade. However, this should be seen in terms of the continued growth of ports already in use that had been integrated into wider Indian Ocean trade networks. Trade patterns certainly shifted over time as well, but this should be seen in the context of longer-term processes. The dividing line between the Ptolemaic and Roman periods should not be overstated.

The development of Ptolemaic-era trade in the Erythra Thalassa

Before looking at the developments that took place in the Augustan period, it is necessary to examine the integration of Egypt into wider Indian Ocean trade networks during the course of the Ptolemaic period. Throughout the third century BCE, the Ptolemaic royal court became increasingly interested in the Eastern Desert as a source of mineral wealth, particularly gold from the Wadi Hammamat and Barramiya regions.⁷ They were also interested in setting up tracks across this region and establishing ports like Arsinoe, Philoteris and Berenike on the Red Sea coast. This enabled access to the coast of East Africa and to hunting grounds where elephants could be acquired for use in warfare.⁸ Another major port, Myos Hormos, which like Berenike would become of great commercial significance, was founded at least by the second century BCE as reported by Agatharkhides, although it is unclear if it was ever connected to elephant-hunting activities.⁹ The Ptolemaic desire for elephants even led to explorers like Simmias (under Ptolemy III – r. 246–222 BCE) going as far as the Gulf of Aden to set up hunting bases.¹⁰ However, these periodic expeditions seem to have ceased by the mid-second century BCE, and, by this point, trade had become the main *raison d'être* for these ports.¹¹ Indeed, the acquisition of ivory may always have accounted for a greater part of the elephant-hunting activity than had the capture of live elephants;¹² the level of ivory entering the Mediterranean markets during the third century BCE possibly caused a price slump as suggested by inscriptions from Delos.¹³

A range of evidence attests to the increased commercial activity by the second century BCE. For example, an inscription dating to 130 BCE records that an official named Sôterichos, the subordinate of Paōs the *Strategos* of Thebes, was tasked with supervising the precious gem mines in the Eastern Desert, monitoring the shipping in the Red Sea and the transport of aromatics to Koptos.¹⁴ Continued Ptolemaic interest in the region is clear from Strabo's reference to guard-posts along the Red

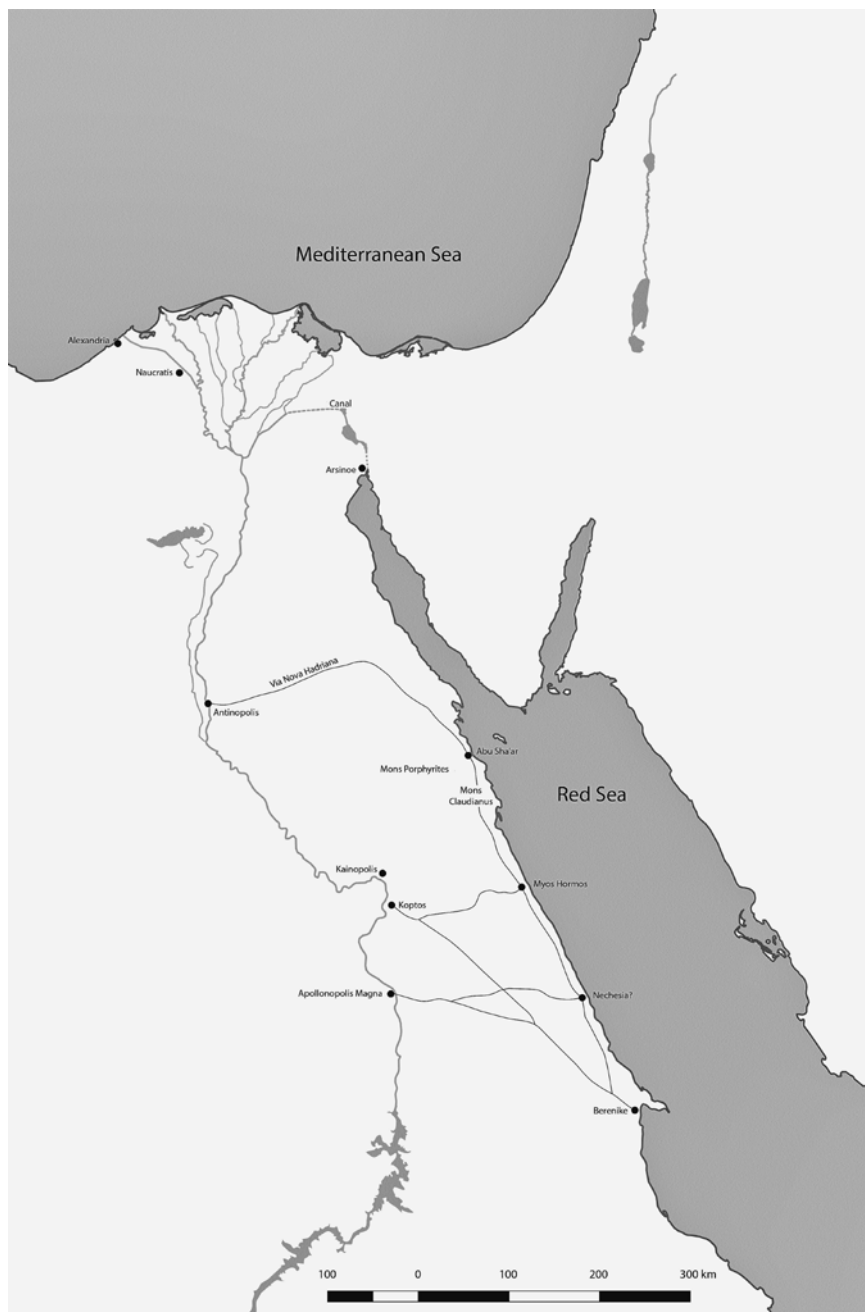


Figure 2.1 Map of Egypt (courtesy of Matthew Adam Cobb; drawn by Martin Crampin)

Sea coast under Ptolemy VIII Euergetes II, while Agatharkhides alludes to the operation of warships in the Red Sea during the second century BCE.¹⁵ More explicitly, the latter reports that one of the Ptolemaic kings sent quadriremes to raid Nabataean territory as a response to attacks on merchant shipping.¹⁶

Early Ptolemaic trade

Ptolemaic interest in East Africa was not only spurred on by a desire for elephants and ivory, but also a range of both living and inanimate commodities. Primates were popular, to judge from the comments of Agatharkhides and remains from the sacred animal necropolis at North Saqqara (early second century BCE).¹⁷ Aromatics were most likely also being derived from East Africa, to judge from a papyrus dating to 150 BCE. This document records several individuals from Egypt, Massalia, Carthage, Lakedaemonia and Elea (in Italy) who were connected to a venture to acquire goods from the Spice-Bearing (Ἀρωματόρον) Land.¹⁸ The location has been most convincingly identified with the coast of Somalia, since the author of the *Periplus* places the 'Spice Port' in this region and Strabo identifies the promontory around Cape Guardafui as the frankincense-bearing lands.¹⁹ Archaeological evidence from the site of Hafun West also reveals Ptolemaic-era connections. Finds include a Ptolemaic lamp fragment, some sherds of late Hellenistic *lagynos*, and possibly sherds of amphorae with fabric typical of the Nile Valley (produced from first century BCE to fourth century CE). The site seems mostly to have been occupied in the first century BCE, but the presence of some Roman material indicates continuity between the two periods.²⁰

Besides commercial contacts with East Africa, literary and archaeological evidence also reveal links with the southern Arabian Peninsula. Koan amphorae fragments dating to the mid-first century BCE have been found at the port of Qana' (Kane of the *Periplus*), suggesting Ptolemaic era contact.²¹ Likewise, at Khor Rori (Sumhuram, possibly the Moscha Limen of the *Periplus*), finds of Mediterranean monochrome ribbed bowls (pillar-mould bowls) dating from the second half of first century BCE to the first half of the first century CE and imitation Athenian tetradrachmae (head/owl series) – replicating Greek legends of the mid-fourth to early second century BCE – are also indicative of continuous contact that straddles the late Ptolemaic and Roman periods.²² Arab incense merchants also made their way to Egypt, as demonstrated by a number of (mostly Minaean) graffiti and inscriptions. Several individuals left their names and affiliations etched along the route crossing the Wadi Hammamat (the Koptos–Myos Hormos road), and at the port of Myos Hormos.²³ More explicitly, a Minaean trader called Zayd'il bin Zayd left an inscription at Memphis identifying himself as an importer of myrrh and calamus (somewhere between the mid-third to mid-first century BCE).²⁴ Furthermore, Minaean frankincense is recorded in the Zenon papyrus and Agatharkhides also mentions that Sabaeans traded *larimnum*, a fragrant perfume.²⁵

Commercial contact between early to mid-Ptolemaic Egypt and India is assumed to be largely indirect, with ports of the southern Arabian coast and the island of

Socotra acting as entrepôts. The latter seems to be the Fortunate Islands mentioned by Agatharkhides, who reports that merchants from Patala (the Indus River), Persia, Carmania (southern Iran), and potentially (by implication) Egypt frequented the place.²⁶ Another entrepôt was the port of Aden (in modern Yemen). The author of the *Periplus* emphasised its prominence prior to its sack by 'Caesar' (*Kaīsar*), a statement which has generated much controversy.²⁷ It is unclear whether this refers to a genuine sack by either Aelius Gallus or Gaius Caesar, or a mistaken emendation of the name 'Charibael' (an Arabian ruler).²⁸ But the most plausible explanation is likely the one offered by Seland, who suggests that the author of *Periplus* conflated Aelius Gallus' campaign in Eudaimon Arabia (southern Arabia) under Augustus, with an actual sack of the port known as Eudaimon Arabia (Aden).²⁹ This idea is all the more plausible for the reason that Strabo states Aelius Gallus did not get beyond Ma'rib, while Gaius Caesar never campaigned in southern Arabia.³⁰ In addition to the literary testimony, the presence of Indian Red and Black wares at Khor Rori in the first phase of occupation (third–first centuries BCE), alongside the concurrent presence of Koan vessels and imitations of Athenian tetradrachms, seems to attest to the role of these southern Arabian ports as entrepôts.³¹ Moreover, the simultaneous presence of Rouletted Ware and Paddle-impressed Ware at Berenike (Egypt), Arikamedu (South-east India), and Khor Rori (Oman) further underlines the Ptolemaic and Roman period links between these ports.³²

Goods from India and locations further east seem to have reached Egypt in the early to mid-Ptolemaic period, but some of the evidence remains open to debate. Callixeinus of Rhodes (second century BCE) claims to have witnessed Indian dogs, cattle and women in a procession in Alexandria, while elsewhere he mentions pillars of Indian gems.³³ In addition, one of the Zenon papyri records an Indian dog named Tauron (third century BCE).³⁴ Another one of these papyri even records the products *murou kinnamōmou* (cinnamon) and cassia, which, if identified with their modern namesakes, may originally have derived from China or Sri Lanka, being transhipped via India and Arabia.³⁵ Additionally, an inscription from the Paneion at el-Kanais celebrates the offering up of Indian myrrh by Apollon due to his father's safe return.³⁶ It might be questioned whether these products were genuinely Indian (as we would understand it) or, in fact, derived from places like East Africa. By the Late Antique period, if not earlier, 'India' could be understood to refer to not only India proper, but Ethiopia, Southern Arabia, Sri Lanka and regions further east.³⁷ Despite the possibility of conflation, however, an Indian (or Far Eastern) origin for some of these items need not be firmly ruled out. In the first century CE, Pliny referred to both Ethiopian (possibly *Commiphora spp*) and Indian (possibly *Balsamodendron spp*) 'myrrh', opening up the possibility that Apollon was making a distinction between these two products.³⁸

In the opposite direction, it is evident that a few Egyptian/Mediterranean objects were reaching India in the Hellenistic period. A gold coin of Ptolemy II (r. 285–246) has purportedly been found in the harbour area of Vizhinjam (the Balita of the *Periplus*?), southern Kerala.³⁹ Similarly, Ptolemaic bronze coins have been found in western India, as have small bronzes from Asia Minor at Madura and Karur, and a silver coin struck of Kyzikos.⁴⁰ Isotope analysis also suggests that

lead from western Mediterranean mines may have been used by polities in the Deccan (pre-Satavahana dynasty) to produce local coins.⁴¹ Furthermore, possible Hellenistic-era Megarian bowls and imitations have been found in the Deccan.⁴² Additionally, several sites in the Deccan – Bhokardan, Brahmapuri, Kolhapur, Nevasa, Paithan and Ter – have revealed imitations of Hellenistic terracottas (both technically and stylistically).⁴³ Certainly these finds are not equivalent in scale to the Roman period finds, but, nevertheless, attest to the existence of direct or indirect networks of exchange.

Voyages over the open ocean

Intermediary points like Socotra and ports on the southern Arabian Peninsula seems to have remained important entrepôts even into the Roman period.⁴⁴ However, it is clear by the late second and first century BCE that merchants operating from Egypt were sailing to India, perhaps initially by hugging the coast (though some scepticism has been expressed about this) and subsequently by crossing directly over the Arabian Sea.⁴⁵ This latter method involved using the annual monsoons. The South-west Monsoon occurring yearly between June and September was used by Mediterranean merchants who set out from Egypt around mid-July, catching the tail end of the monsoon to reach India by the latter part of September. A return journey to Egypt using the North-east Monsoon was undertaken around December to early January in order to reach the Egyptian Red Sea ports around February–March.⁴⁶ Some scholars have attempted to argue that Mediterranean merchants did not acquire full knowledge of how to utilise the monsoon winds until the Roman period, and, as a result, there was less direct trade between Egypt and India in the Ptolemaic period.⁴⁷ These arguments are based on attempts to reconstruct the two traditions about the development of voyages to India which appear in the Classical sources.

The first tradition acclaims Eudoxos of Kyzikos as being the first Greek to voyage from Egypt to India. This account was recorded by Posidonios who heard it at Gades around the late second century BCE and was later dismissively recounted by Strabo. The details can be briefly summarised as follows: Eudoxos, after coming to Egypt as a sacred ambassador, happened to become a part of Ptolemy VIII's court. Most likely around the last few years of Ptolemy VIII's reign, a shipwrecked Indian was discovered by the Ptolemaic coastal guard in the Red Sea. This Indian was nursed to health, taught Greek, and promised to guide an expedition to India in which Eudoxos became involved. After a successful journey, Eudoxos returned with a cargo full of precious stones and perfumes, which was acquired by Ptolemy VIII. A second venture was launched by Cleopatra III, niece and wife to Ptolemy VIII, but when Eudoxos eventually returned (after having been blow off course to East Africa) the cargo was seized by her son. Having left the Ptolemaic court, Eudoxos was inspired to find another route to India from the west by rounding Africa.⁴⁸ The first expedition could not have taken place later than 116 BCE, the year of Ptolemy VIII's death, while the second expedition initiated by Cleopatra III must have returned by 107 BCE when Ptolemy IX Soter II was in power.⁴⁹

The second tradition focuses on the wind named Hippalos (in Latin Hippalus) – that is to say, the South-west Monsoon – referred to in both the *Periplus* and in Pliny's *Natural History*.⁵⁰ The author of the *Periplus* states the wind was named after the first man who was willing to sail over open water, establishing a route so that sailors no longer needed to hug the coast. Pliny mentioned Hippalos twice. Mazzarino argued that Pliny did not particularly believe in this tradition about a man named Hippalos and that when discussing merchant voyages to India he is, in fact, referring to an undersea wind, *hypalum* (NH 6.26.100). He asserted that errors over time in copying the various manuscripts and attempts by modern editors to 'correct' those references to a *hypalum* have led to the insertion of *hippalus*. He also argues that another reference to a *Hippalus* (NH 6.26.104) later in the discussion is the result of Pliny transcribing information derived from contemporary merchants, who had created an aetiological myth out of a conflation of the notion of a *hypalum* with the name Hippalus.⁵¹ There may be some validity in Mazzarino's textual argument, but it cannot be claimed with any certainty whether Pliny believed in a genuine man named Hippalus (as referred to at NH 6.26.104) since he is not sufficiently detailed on the matter. What is clear is that Pliny, and the author of the *Periplus*, make no reference to Eudoxos; whether this was due to disbelief, ignorance, or lack of interest is unanswerable.

Often scholars are willing to accept the credibility of one or both of these traditions.⁵² However, some go further and attempt to marry the two by suggesting that Hippalos accompanied Eudoxos on his first expedition to India and then undertook subsequent voyages after Eudoxos switched his focus to circumnavigating Africa.⁵³ The problem with this theory is that it has no evidential basis – Strabo never mentioned a Hippalos.⁵⁴ There have also been attempts to date Hippalos' 'discovery'; these dates range from the second century BCE to the reign of Domitian (81–96 CE).⁵⁵ In particular, those who argue that Ptolemaic period trade was more limited due to a lack of direct oceanic voyages usually assert that discovery of Hippalos should be placed in the first century CE. Most notably, Warmington argued that the full discovery of the monsoon was made in the reign of Claudius on the basis that the freedman of Annius Plocamus, who followed shortly after Hippalos (placed in the reign of Tiberius), initiated the further use of the monsoon winds to reach southern India and Sri Lanka after accidentally arriving at the latter destination.⁵⁶ The idea that the freedmen of Plocamus can be integrated into this discovery tradition rests entirely upon assuming that the sudden gale that took him of course while sailing around the southern Arabian coast in some way connects to the monsoon winds, which Pliny does not for a moment suggest.⁵⁷ Moreover, any attempts to date the actions of Hippalos, assuming such a person ever existed, is complicated by the fact that neither the author of the *Periplus* nor Pliny provide any precise details. All that can be said is that the tradition about Hippalos must have already existed prior to the mid-first century CE when the *Periplus* was written. It is cannot even be ruled out that this tradition pre-dates that of Eudoxos (the late second century BCE).⁵⁸ In regard to the tradition concerning Eudoxos, Strabo attempts to systematically dismiss the story.⁵⁹ However, besides Strabo's polemic,

there are no particular reasons to doubt the existence of Eudoxos and at least some of the details surrounding him.⁶⁰

It is not necessarily to believe that the traditions surrounding Eudoxos or Hippalos represent an initial discovery of the monsoon winds.⁶¹ Assuming that Scylax of Karyanda's voyage down the Indus and into the western Indian Ocean was a genuine event, then there may have been some knowledge of the monsoon winds as far back as the 510s BCE, although the murkiness of this figure leaves this open to a great deal of doubt.⁶² More definitively, the monsoons were encountered by the fleet led by Nearchus during Alexander's return march from India to Babylon.⁶³ How widely his Hellenistic contemporaries appreciated these annual phenomena is unclear. What is clear is that Arab merchants did not deliberately hold back 'secret' knowledge of the monsoon winds in order to disadvantage their western 'competitors'.⁶⁴ Knowledge about pre-Islamic Arab sailing practices is limited but by the early Medieval period, it is known that they employed an entirely different tradition, based on different vessels, with different sail technology. In the winter season, Arab merchants sailed up the coast of the Arabian Peninsula to its north-eastern tip and then tacked in a south-eastern direction using the gentler North-east Monsoon to reach the southern tip of India. The return journey was made utilising the same North-east Monsoon to make a straight voyage to Aden.⁶⁵

The best way to interpret the two 'discovery' traditions is perhaps to understand them within the context of longer-term processes, a view advocated by Tchernia. He asserts that the greater use of the monsoon winds to sail over open water was a result of sailors understanding the layout of the coast of India. They came to realise that they could reach India and not get lost in the great ocean (a perennial fear as is clear from the comments of Kosmas), and that the landmass stretched southwards not eastwards as the 'scholarly' tradition suggested (as seen in Classical geographic works like the *Geography* of Claudius Ptolemy).⁶⁶ This concept of longer-term processes does not mean that we need to reject the details of the 'discovery' traditions. It is entirely possible to accept that the development of knowledge about the location of ports and confidence in making landfall was the primary concern, and not the 'discovery' of the monsoon winds. Eudoxos and his voyages can be tied into this longer-term process of plotting locations on the western coast of India. In fact, the detail about Eudoxos getting blown off course to East Africa on the second return voyage seems to be indicative of cross-oceanic voyaging.⁶⁷ The possibly mythic Hippalos also fits into this, at the very least as a later aetiological explanation for the culmination of these longer-term processes. The key point is that by the late second century BCE, merchants from Egypt were increasingly voyaging to India, and that some cross-oceanic voyages were taking place.

The growth in trade

The frequency with which merchants setting out from Egypt reached India cannot be stated with any precision.⁶⁸ What is notable, however, is the appearance of offices connected to trade in the Red Sea and wider Indian Ocean from the late

second century BCE. Sōterichos has already been noted (inscription dating to 130 BCE). Shortly thereafter, the office of ‘*Strategos* and *Epistrategos* of the Erythraean and Indian Seas’ appears.⁶⁹ The fact that the ‘Indian Seas’ is separately emphasised in the title lends greater weight to the view that a number of merchants were not confining their activities to the Red Sea proper but were likely sailing in the Arabian Sea. One inscription from Koptos which mentions this office in relation to the eighth year of Ptolemy has been variously dated to 116, 110/09, 74/73 and 45/44 BCE.⁷⁰ A late second or early first century date for the Koptos inscription is equally plausible, but the appearance of other inscriptions referring to Kallimachos as *Strategos* and *Epistrategos* of the Erythraean and Indian Seas, gives a *terminus post quem* of 62 BCE for this office.⁷¹

Evidence from Arikamedu also points to Egyptian and Indian commercial links in the late Ptolemaic period. A number of excavations during the twentieth century brought to light about 540 fragments of Mediterranean amphorae at this port settlement. Just over half of these fragments are Koan, about a tenth Knidian, and almost a fifth Rhodian.⁷² Grace argued that a small portion of the Koan amphorae date stylistically to the late second century BCE, though the majority to the first century BCE. The Knidian and Rhodian amphorae fragments are broadly first century BCE in date (a few Rhodian fragments appear to be first century CE), but more specifically two Knidian amphorae stamps reveal that some were produced c. 75–50 BCE, making a Ptolemaic date for the export of a certain amount of these wines highly likely.⁷³ The presence of 20 Koan and 11 Knidian amphorae fragments in a sector of the site associated with Indian material of the second century BCE may also be indicative of Ptolemaic period exchange, although it is not possible to be certain about the date of disposition.⁷⁴ There appears to have been continuity between the Ptolemaic and Roman era trade links (be they direct or indirect). In particular, the shift from Koan (late second to first century BCE) to Pseudo-Koan (Augustan), and then Dressel 2–4 (first century CE) wine amphorae seems to demonstrate a transition – one in which wine from Italy (but initially in vessels that look like the traditional Koan ones) came to replace Koan wine, but in a way that suggests sensitivity to long-standing consumer tastes at this south-east Indian port.⁷⁵

Additional attestation of Ptolemaic period links with India may be evinced by finds of Rouletted Ware (second to first centuries BCE). These wares, produced across south-east India and Sri Lanka, display Mediterranean influences, either via trade links with Egypt or via contact with the Persian Gulf.⁷⁶ Most probably the former, for, as noted, the simultaneous presence of Rouletted Ware and Paddle-impressed Ware at Berenike, Arikamedu and Khor Rori (Moscha Limen) points to early links between these ports.⁷⁷ Overall, the evidence suggests that trading activity and links with India (direct or indirect) grew more substantial during the late Ptolemaic period and continued on an even greater scale during the Roman period. The presence of sherds of Pseudo-Koan amphorae at Arikamedu seems to emphasise the point that these transitions should be seen in terms of development, expansion and growth, rather than a radical break between the Ptolemaic and Roman periods.

Ptolemaic monopolies

The notion that the Ptolemaic government monopolised the import of eastern goods acquired via the Red Sea has been accepted by some scholars who suggest that subsequent Roman rule in Egypt ushered in a period of freer and less restrictive commercial activity.⁷⁸ Posidonios' (via Strabo) claim that Eudoxos twice had the goods he brought back from India seized by Ptolemaic monarchs is sometimes pointed to as evidence of this policy. The difficulty with this interpretation is the ambiguity surrounding the extent to which the Ptolemaic court financed these ventures, and what right Eudoxos had to claim part of the cargo (whether he personally invested any money is unstated). At the conclusion of the second expedition, Eudoxos is said to have lost out because he attempted to misappropriate part of the cargo and not due to any monopolistic policy.⁷⁹ With regard to the first expedition, Eudoxos may have also attempted to steal part of the cargo, as Strabo makes clear during his rebuttal of Posidonius' account.⁸⁰

Indeed, previous ideas about Ptolemaic government monopolies have begun to be reconsidered. Bowman, for example, emphasises the existence of free market enterprise.⁸¹ The aforementioned venture to the Spice-Bearing Land (mid-second century BCE) certainly points to privately financed commercial activity in the Red Sea and Gulf of Aden by a range of participation from across the Mediterranean world.⁸² Elephant hunts in the early to mid-Ptolemaic period seem to be largely state-directed, but there is no real evidence to suggest that all commercial activities in the second and first centuries BCE were subject to state planning.⁸³ In fact, it is clear that movement across the Eastern Desert and activity in the region was not solely dependent upon state supervision and logistical support, as demonstrated by archaeological evidence, even for periods when central authority was limited in southern Egypt (early second century BCE).⁸⁴ By the Roman period, commercial ventures in the Indian Ocean were undertaken on a much greater scale, but this need not lead us to assume that activity in the late Ptolemaic period should be seen as qualitatively different. The Roman period upsurge should be understood in the context of a unified and more stable Mediterranean world that provided a greater market for eastern goods and more opportunities to invest.⁸⁵

Forts, ports and desert routes

As we have seen, the initial spur for the establishment of many of the ports along the Red Sea coast and fortlets lining the Eastern Desert routes was elephant-hunting activity and gold mining. The shorter Edfu–Berenike route (compared to the Berenike–Koptos route) seems to have been particularly important in the early Ptolemaic period, as it offered a quicker crossing for the live elephants which were to be taken to the Nile and then upriver to Memphis. Similarly, the more southerly location of the port of Berenike made it easier for the return voyage of the *elephantēgoi* that transported these animals.⁸⁶ A series of tracks ran from Edfu (ancient Apollonopolis Magna) to the ports of Berenike and Nechesia (most likely at modern Marsa Nakari). Along these tracks were square-shaped cairns

(stone-markers) setting out the route, and it is possible that some distance markers were set up – at least at Bir 'Iayyan, 97 km east of Edfu, a stele was erected in 257 BCE by Rhodon, son of Lysimachos for this purpose.⁸⁷ These routes also revealed five Ptolemaic fortlets, many possessing walls, towers, cisterns and internal rooms, as can be seen at Barramiyya (Edfu–Marsa Nakari route) and Samut (Edfu–Berenike route).⁸⁸

While the routes leading from Edfu were important in the early to mid-Ptolemaic period, a shift began to take place by the mid-late second century BCE in which Koptos became the main Nile emporium for goods and people travelling to and from the Red Sea ports. This was a long-term shift as Koptos was to remain the main emporium into the Roman period. The increasing importance of this site for international commerce can be seen from the comparatively high number of imported ceramics in the mid-late Ptolemaic assemblages (5% of the total), this is quite high compared to other sites like Naukratis.⁸⁹ Moreover, the fact that Strabo emphasises the importance of Myos Hormos in the mid-20s BCE is telling, since there is certainly no route linking this port to Edfu.⁹⁰ The location of Koptos on a bend of the Nile meant it offered a comparatively short crossing to Myos Hormos, and with the decline of elephant-hunting expeditions by the mid-second century BCE, the Edfu–Berenike route may have lost some significance. In term of administration and taxation, it made sense to redirect the commercial traffic from both Berenike and Myos Hormos to a single emporium.⁹¹

The fact that by the late Ptolemaic period Koptos already become the main Nile hub with links to the Red Sea ports of Myos Hormos and Berenike is not to suggest that no subsequent developments took place in the Roman period. A major phase of (re)fortification would occur along the Koptos–Myos Hormos and Koptos–Berenike routes in the Flavian period.⁹² While in the first half of the second century CE, the Trajan would establish/dredge a canal (possibly at least partially based on the earlier canal of Ptolemy II Philadelphos) connecting the Nile to the port of Arisone/Clysma on the northern shore of the Suez.⁹³ Furthermore, Hadrian would establish the *Via Nova Hadriana* – a route running from Antinoopolis (Sheik 'Ibada) across the Eastern Desert and paralleling the coast down to Berenike.⁹⁴ Nevertheless, routes between Koptos–Myos and Koptos–Berenike would remain fundamental from the late Ptolemaic period into the Roman Imperial period (in the case of the route to Myos Hormos at least until the third century CE, and in the case of the route to Koptos until the sixth century CE).

Developments in the Augustan period

The review just undertaken has demonstrated that during the Ptolemaic period, Egypt increasingly become integrated into wider trade networks linking East Africa, southern Arabia and India. Direct or indirect links to ports or locations such as Qana', Khor Rori, Socotra and Arikamedu had their inception during this period. The presence of Koan amphorae at Pattanam (most likely ancient Muziris) may also open up the possibility of late Ptolemaic-era links with this major south-west Indian port.⁹⁵ By the late second to early first century BCE some direct voyages to

India were being undertaken – there is no reason to think that full use of the monsoon winds by Mediterranean merchants had to wait until the Roman period. The notion that the Ptolemaic state monopolised trade activity in the Red Sea and Indian Ocean also needs to be reconsidered. Finally, the development of Koptos as the main Nile emporium connected by routes to Myos Hormos and Berenike had its inception around the mid-late Ptolemaic period. It now remains to determine what developments and innovations took place during the Augustan period.

Construction activity at Myos Hormos and Berenike

The most obvious, and literal, example of building upon Ptolemaic precedents is the upsurge in construction activity at the Red Sea ports of Myos Hormos and Berenike. This is most tangible from the archaeological evidence, although there can be difficulties in establishing a clear line between the Ptolemaic and the early Roman. In the case of Myos Hormos, the excavators from the University of Chicago (late 1970s and early 1980s) were only able to recover a limited amount of Ptolemaic material.⁹⁶ The excavators from the University of Southampton (1999–2003) were able to recover a little more, but the lagoon sediment made it difficult to access earlier phases at the site.⁹⁷ Moreover, the coins and pottery attributed to the Ptolemaic period were found around the harbour area, making it likely that much has been lost to the sea or under layers of silt.⁹⁸ A further complication is that it is not always possible to precisely identify whether something is Ptolemaic or Augustan in date.⁹⁹ For example, about 189 ancient ceramic lamps have been identified at Myos Hormos, the majority of them being placed broadly in the Ptolemaic to early Roman periods.¹⁰⁰

In theory, the identification of coins and their numbers might indicate intensity of occupation at the site, assuming no overly long lag between minting and disposition. The acidic sandy conditions at the site, however, have left some of the coins heavily eroded. Nonetheless, about 40 Ptolemaic and Roman coins can be identified to a specific ruler or a likely period. The 4 identified Ptolemaic coins represent 10% of the sample. Whereas for the Augustan period it is 12.5% and 50% for the first century CE – this drops down to 10% for the second century and 2.5% for the third century.¹⁰¹ This sample is admittedly very small and conclusions drawn from it should be treated with a great deal of caution. That said, the chronological distribution does seem to reflect other evidence which points to a high point for Mediterranean participation in the Indian Ocean trade during the first century CE.¹⁰² The low numbers for the second and third centuries CE reminds us that we should not be too dismissive of the significance of Ptolemaic period activity.

The increasing volume of trade is reflected in the Augustan period construction activity at Myos Hormos. The excavators identified evidence for the clearance of the mangrove swamps near the northern harbour followed by the building of seawalls (pottery of a late first century BCE to late Augustan date has been found in the foundations). A workshop with a furnace for industrial activity has been identified in Trench 10, which seems to overlay an earlier structure used for similar purposes, and is located near to pits revealing Roman and a few earlier Ptolemaic

pottery sherds. A jetty built with foundations of amphorae filled with coarse material (amphorae fragments, gravel, and occasionally charcoal) has been discovered in Trench 7. An Augustan or early first century CE date have been suggested, but since a few of the vessels used in the construction may be Ptolemaic, an earlier Augustan date may be more plausible.¹⁰³ The evidence reflects the upgrading and expansion of pre-existing port facilities.

Comparatively more Ptolemaic material has been found at the port of Berenike, but, like with Myos Hormos, some difficulties were faced during earlier excavations in accessing the earlier material.¹⁰⁴ However, recent work has shed greater light on Ptolemaic era activity.¹⁰⁵ Assessing Augustan-era building activity is also difficult, because the late Ptolemaic and early Roman structural remains have not fared as well as those for the early Ptolemaic and late Roman periods.¹⁰⁶ Despite the difficulties, however, it is possible to identify some Augustan construction activity, notably a protective seawall on the eastern edge of the site. The use of limestone boulders in its construction seems to be characteristic of the late Ptolemaic and early Roman periods.¹⁰⁷ The presence of residual Ptolemaic material alongside Roman material indicates that the site was continuously occupied and there was not a break between the late Ptolemaic and early Roman periods.¹⁰⁸ The orthogonal pattern in the early Roman street plan appears to be a continuation of the Ptolemaic layout of the site, while other parts of the site also seem to evince organic development such as the area around the so-called 'Serapis temple' (Great Temple) and the harbour area south of the Ptolemaic industrial zone.¹⁰⁹

Some scholars, such as McLaughlin, have put forward the theory that Myos Hormos was more significant than Berenike during the Augustan period, with the latter falling into disrepair and not being restored until the reign of Tiberius. The ostraka of the Nikanor archive (receipts for the transport of goods), the Tiberian dating for the earliest cartouches at the temple of Khem, and Strabo's emphasis on the commercial importance of Myos Hormos (c. mid-20s BCE; he only states that Berenike had landing places rather than a harbour) have been cited as evidence for this.¹¹⁰ It is admittedly more difficult to identify Augustan period developments at Berenike. However, it is questionable whether the Nikanor archive can be used to support this assertion. Of the 83 ostraka from this collection, 67 are complete enough to reveal the port to which the goods were delivered. There are 37 (55%) which name Myos Hormos as the destination and 30 (45%) which mention Berenike.¹¹¹ It is true that the highest number of the ostraka referring to Berenike come from the reign of Tiberius (12). However, in the case of Myos Hormos, the reign of Claudius (23) accounts for nearly two-thirds, while receipts dated to the reign of Augustus are roughly equal (Myos Hormos 2 – Berenike 3).¹¹² It is unlikely that the surviving chronological distribution of these receipts reflects the relative significance of the ports at any given period. It may be that these receipts reflect the amount of business that Nikanor's transport business was doing with particular ports at particular times, but it is not so clear that they can be connected to occupational intensity.

Wilson has also argued that the lack of Ptolemaic-era material along the Koptos–Berenike route meant it was not in use in the Roman period, with travellers

still reaching Berenike from Edfu.¹¹³ However, the *masiones* (stopping-points) mentioned by Pliny on the Koptos–Berenike route may well be continuators of the στρατόπεδα which Strabo states were created by Ptolemy II.¹¹⁴ Moreover, Pliny's information about these *masiones* possibly derives from the Map of Marcus Agrippa (created over half a century before Pliny's time), which would further underline the point that the routes going from Koptos to Berenike and Myos Hormos were in operation during the Augustan period.¹¹⁵ Overall it can be said that the Augustan annexation of Egypt ushered in a spate of building activity at both Myos Hormos and Berenike, no doubt because of the increased level of trade activity, and that the routes from Koptos to these two ports continued in operation.

New participants and finance

Identifying the merchants from the Mediterranean world who participated in the Indian Ocean trade is beset with problems. First of all, Greek was often employed as a *lingua franca* and its use cannot necessarily inform us if someone considered themselves Greek as opposed to say Egyptian or any other identity. Secondly, *tria nomina* appear in a number of written records (inscriptions, graffiti, ostraka), especially with mixed appellations. This can raise questions about an individual's status – are they a freedman belonging to the household of an Italian financier or might they be a *peregrinus* who had been granted citizenship (in some instances, they clearly connect to the imperial household)? These complications, however, need not prevent us from attempting to understand the cultural-ethnic or socio-economic statuses of those involved in the trade.

Indeed, some scholars have taken the view that Augustan annexation of Egypt ushered in an influx of finance and new participants in the trade, particularly financiers and merchants from Italy.¹¹⁶ Several Italian families have been identified as potential investors with an interest in the Indian Ocean trade – these include the Caii Norbani, Peticii, Auli Gabinii, Calpurnii, Anni and Vestorii – one to four of these families may have started or continued their interests into the Augustan period (the Calpurnii, and possibly the Peticii, Anni and Gabinii).¹¹⁷ There is insufficient scope in this chapter to provide a full review of the arguments made in relation to these families' involvement in the Indian Ocean trade.¹¹⁸ But, by and large, these arguments are based on hypothetical connections between the families in Italy and individuals operating in the Eastern Desert/Red Sea region who shared a *praenomen* and/or *nomen*. Many of the arguments are actually quite plausible, if not definitively beyond doubt. Indeed, it is unsurprising that many wealthy Italian families might have taken the opportunity to invest in such a lucrative trade.

Two key points need to be stressed in relation to the potential involvement of these Italian families as investors or as participants via their agents. Firstly, the Red Sea/wider Indian Ocean trade clearly involved many groups from across the Mediterranean world in the Ptolemaic period, as the aforementioned venture to the Spice-Bearing Land (150 BCE) makes clear – this included a Gnaius from Italy who arranged the loan. If De Romanis's suggestion about the connection between a group of Italian merchants and a Ptolemaic official called Lachos is correct

(he became *strategos* of the Thebiad in 124–116 BCE), then there may be other evidence of early Italian involvement in the Red Sea trade.¹¹⁹ Thus Italian, or other non-Alexandrian/Egyptian investment need not been seen as an unprecedented development of the Augustan period.

The second major point to make is that Alexandrian/Graeco-Egyptian merchants and financiers were not displaced from the Indian Ocean trade as a result of Augustan annexation. For all Strabo's marvelling at the substantially increased volume of trade that came with the Roman acquisition of Egypt, he nevertheless identified the merchants of Alexandria as the ones who sailed with fleets to India (mid-20s BCE).¹²⁰ It is clear that financial investment by the Alexandrian/Graeco-Egyptian elite continued into the first and second centuries CE, as can be seen with the involvement of Marcus Julius Alexander (at least around 37–43/44 CE), brother of the later governor of Egypt Tiberius Julius Alexander (66–69 CE), and the two wealthy Alexandrian matrons (c. Hadrianic period) who are recorded as ship-owners and merchants of the Red Sea (they were linked to an Apollinarios the *eparchos*, presumably an important official).¹²¹

Certainly with regard to the operation of the trade (in particular, transporting and loading of goods onto the ships at the Red Sea ports), it is clear that Graeco-Egyptians were predominantly involved. This is apparent from the Julio-Claudian period Nikanor archive where two-thirds of those named are Graeco-Egyptians, about 15% are individuals granted citizenship (*tria nomina* with mixed-appellations), so they could be either freedmen agents of Italians or *peregrini* granted citizenship, and about 12% who may be Italian agents (this excludes references to soldiers and imperial freedmen/slaves). The mid-first century CE Berenike customs passes (from the 1994–98 seasons) also show that about 78% of the ostraka which can be read mention Graeco-Egyptians.¹²² The most appropriate conclusion that can be drawn from the evidence just reviewed is that Italian financiers and merchants probably did take the opportunity to invest in the thriving and highly profitable Indian Ocean trade, but this need not been seen as an entirely unprecedented development, nor does it indicate the displacement of the Alexandria/Graeco-Egyptian elite as investors.

Augustan military and diplomatic innovations

Comparing Ptolemaic and Augustan diplomatic and military policies and observing any changes or innovations is made difficult due to the limited evidence. A number of scholars have accepted the premise that Augustus broke a supposed Arab trade monopoly which prevented Mediterranean merchants from sailing on to India.¹²³ It is sometimes assumed that Aelius Gallus' military expedition to southern Arabia (26–25 BCE) should be interpreted in this light.¹²⁴ However, Strabo reports that Augustus' motives for sending Gallus on this expedition were to explore the territory and either make friends with the Arab rulers of the region or conquer this wealthy territory.¹²⁵ No mention is made of any aggressive behaviour by southern Arabian polities nor is there any reason to think Mediterranean merchants were prevented from sailing beyond the Gulf of Aden. Since direct voyages to India

pre-date the Roman period, this theory cannot stand. Furthermore, Augustus does not hint at the desire to eliminate a (non-existent) Arab monopoly in the *Res Gestae Divi Augusti*.¹²⁶

It is difficult to know the nature of earlier Ptolemaic diplomatic relations (if any meaningful ones existed) with polities in southern Arabia, or indeed India, since the evidence is lacking.¹²⁷ Of interest, however, is the Hieroglyphic text of the so-called ‘victory stele’ (29 BCE), set up by the first Roman governor of Egypt Cornelius Gallus (30–27 BCE). The Hieroglyphic text mentions ‘Indians’ and ‘Nubians’ bringing him wealth. However, the Latin and Greek text of the stele make no reference to India. Indeed, the Egyptian Hieroglyphic text appears to have been written very much in the Ptolemaic tradition, and it is not by any means a mere translation of the Latin and Greek texts (the Latin text was likely dictated by Cornelius Gallus, with the Greek text being a translation of this).¹²⁸ In any case, whatever the nature of earlier Ptolemaic diplomatic contacts, it is apparent that after the failed expedition of Aelius Gallus in the mid-20s BCE, fairly positive relationships developed between the Roman state and some of the rulers in southern Arabia and India. This is indicated by the sending of Arabian embassies to Augustus and the appearance of the portrait of Augustus on Sabaeen coins (in modern Yemen).¹²⁹ This may well have had a positive impact for merchants sailing in the Red Sea and into the Gulf of Aden.¹³⁰ But as has been noted, links with southern Arabian ports (Aden–Eudaimon Arabia, Qana’–Kane, and Khor Rori–Moscha Limen) were already established prior to the Augustan period (see above) and we should be cautious about assuming more formalised relationships between ‘states’ was necessarily a prerequisite for private commercial trade.¹³¹

Administrative reforms

The earlier view that the administrative structure of Roman Egypt largely followed its Ptolemaic antecedents has been challenged in the last few decades.¹³² With regard to state supervision of Red Sea/Indian Ocean trading activity and the movement of goods across the Eastern Desert, it seems that some modifications were introduced. The office of ‘*Strategos* and *Epistrategos* of the Erythraean and Indian Seas’ which existed in the late Ptolemaic period seems to have been replaced by the *Praefectus Montis Berenicidis* or *Praefectus praesidiorum et Montis Berenicidis* – a title often abbreviated in the written records to Prefect of Berenike or Prefect of the Desert.¹³³ The Prefect of Berenike seems to have been directly answerable to Prefect of Egypt and he had oversight of the region running from the Nile to the Red Sea coast (although probably not extending as far north as the Mons Porphyrites and Mons Claudianus quarries which were worked particularly during the late first and second century CE).¹³⁴

Our earliest reference in Latin to this office dates to Tiberius’ reign when an L. Pinarius Natta is recorded as the *Praefecto Berenicidis*.¹³⁵ However, P. Iuventius Rufus is referred to as the *eparchos* of Berenike in 11 CE, indicating that this office probably had its inception in the Augustan period.¹³⁶ A reference by Pliny to a Philo, prefect of king Ptolemy II, who had responsibility for acquiring the

‘topaz’ (in fact, peridot) from a Red Sea island called Topazos (St John’s Island/Zabaargad) led Maxfield to suggest that this ‘prefect’ (*eparchos*) may have been the forerunner to the later office of Prefect of Berenike.¹³⁷ This is not impossible, although it is unclear where this ‘prefect’ stood in relation to the ‘*Strategos* and *Epistrategos* of the Erythraean and Indian Seas’. The fact that Berenike is emphasised in the title of the Prefect may be an indication of the increased importance of this port by the late Augustan period – whereas at the beginning of the Augustan period, Strabo emphasised the significance of Myos Hormos.¹³⁸ One key reason for this shift is likely the increased volume of trade, especially on larger merchant ships, which will have found the more southerly Berenike easier to operate from – especially because of the prevailing northerly winds in the upper part of the Red Sea.¹³⁹

It is difficult to determine the differences in terms of powers and responsibilities between the Ptolemaic *Strategos* and *Epistrategos* and the Roman Prefect of Berenike. However, Bingen goes so far as to describe Kallimachos, who held the office of *Strategos* and *Epistrategos*, among other offices, as practically a viceroy in southern Egypt.¹⁴⁰ The holders of the office of Prefect of Berenike in the Roman period do not seem to have had this level of power.¹⁴¹ The basic role of providing security, preventing smuggling, and ensuring the payment of taxes was performed by both the earlier *Stratego*i and *Epistratego*i and the Roman period prefects of Berenike. There is certainly much more written evidence for monitoring of the movement of goods in the Roman period, especially from the ‘Berenike customs passes’ (first century CE), essentially ostraka stipulating to the military authorities that individuals were allowed to bring certain goods through customs.¹⁴² Whether these checks were more ‘lax’ in the Ptolemaic period cannot be asserted, since absence of evidence should not be taken as evidence of absence.¹⁴³

Discerning the differences between the tax regimes in the Ptolemaic and Roman periods is also difficult. It is known from the Muziris Papyrus that a 25% tax (*tetarte*) was imposed on goods acquired as a result of the Indian Ocean trade by the mid-second century CE and was probably levied much earlier, at least by the mid-first century CE if the collection of the *tetarte* at Leuke Kome was undertaken on behalf of the Roman authorities.¹⁴⁴ Evidence about the tax rates for goods imported via the Red Sea/Indian Ocean is more limited for the Ptolemaic period. Sidebotham has noted that Arabian caravans could be charged between 25–50% *ad valorem*.¹⁴⁵ Wallace suggests that in the early Augustan period, Strabo’s comments about the most expensive products being subject to the heaviest duties could imply an *ad valorem* sliding scale – 25–50% – inherited from the Ptolemies. Nevertheless, he notes that while it is possible that this sliding scale was abandoned for a fixed rate, presumably 25%, in the Roman period, it is conceivable that it was never applied to the trade via the Red Sea.¹⁴⁶ Indeed, Capponi is of the view that the *tetarte* levied on goods acquired via the Red Sea/Indian Ocean is simply a continuation of a Ptolemaic tax.¹⁴⁷ Given the patchiness of the data, it is best not to make overly firm assumptions about tax levels between the late Ptolemaic and Augustan periods.

Conclusion

In assessing the development of Mediterranean participation in the Indian Ocean trade, it seems that many of the foundations were already laid during the course of the Ptolemaic period. Trade contacts with East Africa, southern Arabia and India were already in place by the late Ptolemaic period and some degree of cross-oceanic voyages between Egypt and India had begun to occur in this period as well. Utilisation of the monsoon winds did not have to wait until the Roman period. It is also difficult to substantiate the notion that private commerce was stifled by Ptolemaic monopolistic policies. The continuity between the Ptolemaic and Roman periods may also be suggested by the networks of exchange – be they direct or indirect – that had developed between Egypt, Qana', Khor Rori, Socotra and Arikamedu.

This is not to deny that the Augustan period saw major developments. Significant construction activity at Myos Hormos and Berenike is indicative of great state interest in this trade and high volumes of traffic. Indeed, by the first century CE, the level of Mediterranean participation in the Indian Ocean trade would reach a scale never seen before. The great profits to be made likely encouraged wealthy individuals/consortia to invest, including some quite prominent Italian families. However, the participation of these groups should not be seen as entirely unprecedented, nor did this new finance displace the Alexandrian/Graeco-Egyptian elite from their prominent role as financiers of the Indian Ocean trade. With regard to Augustan diplomatic and military policies, the idea that he broke apart supposed Arab monopolies is unsubstantiated. The establishment of friendly relations with southern Arabian and Indian polities may well have been reassuring to merchants, but, it should be noted, formal relations were not a prerequisite for trade, nor would the Roman state have been in a position to guarantee the safety of its merchants, at least not as far away as India. Administrative changes do seem to have taken place, but mapping the impact of these in fine detail is very difficult.

In summation, the development of Mediterranean participation in the Indian Ocean trade during the Augustan period should be seen in the context of longer-term processes and precedents established in the Ptolemaic period. Patterns of trade changed over time and new developments took place, but the transition between the late Ptolemaic and Augustan periods did not usher in a completely radical break in all spheres – instead there was more a process of growth and expansion.

Notes

- 1 My thanks to Professor Martina Minas-Nerpel who kindly read through a draft of this paper. Of course, all mistakes remain my own.
- 2 For discussion of this evidence see, De Romanis (1996); Tomber (2008); McLaughlin (2010); Sidebotham (2011); Seland (2014) and Cobb (2015a) and (2015b).
- 3 Some assert that the Romans merely took over a functioning commerce already established by the Ptolemies, see Young (2001): 18–20; Boğan (2014): 154; see also Kolb and Speidel (2015): 119. However, Warmington (1928): 82; Fraser (1972): 174; and Raschke (1975): 244, argue that radical developments took place in the Augustan period. Strauss (2007): 237–238, regards very little trade to have taken place prior to

- the Roman annexation of Egypt; similarly, in more muted terms, see Fantasia (2004): 57. Parry (1999): 213–214, believes that merchants coming from Egypt did not reach India in the Ptolemaic period due to Strabo's failure to mention the port of Barygaza. P. Gupta (1991): 123, implies that the trade did not properly develop until the first century CE, on the basis that the Augustan consolidation of Egypt would have taken a fair period of time. Less problematically, but still in need of some qualification, Tchernia (1997a) and (1997b), argues that Italian merchants became increasingly significant during the Julio-Claudian period. Whittaker (2004): 21, avers that the Roman conquest of Egypt brought about increased liquidity and financing for the trade. Wilson (2015): 13, notes correctly the importance of the increasing convergence of legal and financial institutions under the Roman Empire which would have positively impacted on the trade.
- 4 Seland (2008): 70–71; Seland (2010): 2, 18–20. See also Seland (2014): 386–387 (proto-globalisation). For similar ideas on archaic globalisation see Fitzpatrick (2011): 28–31, 42–43; also Schmitthenner (1979): 92–93, 103, 106; Smith (2009): 84–85.
 - 5 Tomber (2008): 18, 71; Sidebotham (1991): 15; Sidebotham (1996a): 287–288; Sidebotham (2011): 5; Sidebotham, Hense and Nouwens (2008), 177.
 - 6 See Raschke (1975): 244; Phillips (1997): 450; Whittaker (2004): 163, 167; McLaughlin (2010): 29, 169. Sidebotham, Hense and Nouwens (2008), 176–177, suggest initial state control by the Ptolemies but with more private commercial trade later in the Ptolemaic period. However, Puskás surprisingly refers to Roman period long-distance trade as 'basically a state monopoly' – Puskás (1987): 142.
 - 7 C. Meyer et al. (2003): 46–53; Sidebotham et al. (2004): 26; Sidebotham, Hense and Nouwens (2008): 213–226; Klemm and Klemm (2013): 12, 68–78, 86–89, 153–156, 193–211, 249–251, 263.
 - 8 Arsinoe – Strab. 17.1.25; Plin. *HN* 6.167; Berenike – Strab. 17.1.45; Plin. *HN* 6.33.167–168; Philoteris – Strab. 16.4.4–5; Casson (1993): 254; Burstein (2008a): 142; for possible Pharaonic-era activity at Berenike see Sidebotham (2015): 14. For the elephant-hunting base of Ptolemais of the Hunt, see the Pithom Stele CGC 22183 (aus Kamal, *Stèles II*, Taf. LVII – Schäfer, D. (2011): 205 ff., 264–267, 321; see also line 23 – Daresse (1956): 19. For the issues of whether these elephants were 'Forest' or 'Bush' elephants see Brandt et al. (2014); Schneider (2016a); Charles (2016).
 - 9 Agatharkhides 83a + b + c = (a) Phot. *Cod.* 250.80, 456a = (b) Diod. Sic. 3.39.1–2 = (c) Strab. 16.4.5; also 2.5.12. The ancient authors note that Myos Hormos also had the alternative name 'Aphrodite's harbour'.
 - 10 For Simmias see Diod. Sic. 3.18.4. See also Satyrus – Strab. 16.4.5; and Eumedes – Strab. 16.4.7.
 - 11 For the causes of the decline of Ptolemaic elephant-hunting activity see Cobb (2016).
 - 12 Burstein (1996): 799–807.
 - 13 Reger (2002): 138 – *IG* XI 2163Aa7 (279 BCE – 8 drachmae a mina); 203A71 (276 BCE – 5 drachmae per mina); 287A118 (250 BCE – 3.5 drachmae per mina). See also Tarn (1938): 366; Rathbone (2000): 48; Sidebotham, Hense, and Nouwens (2008): 162–164; McLaughlin (2010): 24 n. 8.
 - 14 *OGIS* 132 = *Pan du désert* 86. Gates-Foster (2012): 200–201, argues that Sōterichos' role may not have been completely unprecedented. She infers that Boethos (136–134 BCE), the first official referred to as *Strategos* and *Epistrategos* of the Thebiad, possibly also had connection to this area, although no direct references to the Eastern Desert and Red Sea region areas are made in any of his inscriptions.
 - 15 Strab. 2.3.4–5; Agatharkhides 5.81 = Diod. Sic. 3.38.1–5; also Agatharkhides 5.85a + b + c = (a) Phot. *Cod.* 250.84, 457a, = (b) Diod. Sic. 3.40.1–9, (c) = Strab. 16.4.7.
 - 16 Agatharkhides 5.90a + b = (a) Diodorus 3.43.1–5, = (b) Strabo 16.4.18.
 - 17 Agatharkhides 5.73–74 = Phot. *Cod.* 250.72–73, 455b; Strab. 16.4.16; Diod. Sic. 3.35.5. For the animal necropolis see Goudsmit and Brandon-Jones (2000).

- 18 *SB III* 7169 – see Wilcken (1925): 86–102. There is reference to a creditor – Arkhippos; to those taking out the loan – Demetrios, Hipparkhos son of Hipparkhos, S. . . Khos son of Lusimakhos of Lakedaimonia, Tr. . . os son of Tre. . . of Massalia; those providing sureties – Epeates (Ptolemaic soldier), Kintos son of . . . nios of Massalia, Demetrios son of Apollon Kardonios, Kintos son of Kintos; and to a Gnaius who arranged the loan; see also Fraser (1972): 275 fn.216 (volume II); Raschke (1978): 662; Young (2001): 54–55; Whittaker (2004): 163; Adams (2007): 233; McLaughlin (2010): 24; Sidebotham (1986): 5; Sidebotham (2011): 34.
- 19 *Periplus* 12 (Ἀρωμάτων ἐμπόριον); Strab. 16.4.14; Casson (1989), 129. Sidebotham (1986), 5, identified the place with Punt. The contract stipulates that the merchants had 50 to 90 days upon return to the Red Sea ports to reach Alexandria (crossing the Eastern Desert and heading up the Nile), perhaps suggesting that such ventures were not unusual. On this contract see De Romanis (2014): 76–77. For subsequent developments in Mediterranean trade with East Africa see Burstein (2002).
- 20 Smith and Wright (1988): 120, 124 (material at West Hafun); Horton (1996): 449–450.
- 21 See Sedov (1992): 127, who is somewhat sceptical of the idea; also Sedov (2007): 76–78.
- 22 Lombardi, Buffa, and Pavan (2008): 402 (ribbed bowls); Sedov (2008): 277–278 (coins).
- 23 Sidebotham (1986): 20, 99; Sidebotham (1989): 497; Young (2001): 62; *RES* 2771.
- 24 Hoyland (2002): 70 – M 338; Reference to the twenty-second year of Ptolemy, son of Ptolemy, places the inscription anywhere between the mid-third to mid-first century BCE – Ptolemy II, III, V, VIII, XII, are all potential candidates. For Ptolemaic history see Hölbl (2000).
- 25 Hoyland (2002): 69 – *P. Cairo Zen.* 59536. Agatharkhides 5.103a + b = (a) Phot. *Cod.* 250.101, 459a = (b) Strab. 16.4.19 – Inscriptions from Saba date from c. 800 BCE–275 CE – see C. Robin (2002): 51–53.
- 26 Agatharkhides 5.105a + b = (a) Phot. *Cod.* 250.103, 459b = (b) Diod. Sic. 3.47.8–9. The Fortunate Islands are almost certainly the location called Dioscorides by other writers (modern Socotra). Kosmas (sixth century CE) believed, mistakenly or not, that the Ptolemies had sent Greek colonists there and that this community survived to his own day. Kosmas *Christian Topography* 3.178–179.
- 27 *Periplus* 26.
- 28 Villeneuve (2007): 13, connects the reference in the *Periplus* to an inscription referring, in vague terms, to Gaius Caesar waging war beyond the borders of the Roman people – *CIL* XL 1421; McLaughlin (2010): 3, 71, argues that this was Aelius Gallus, though no specific evidence is cited to support this claim. See also Miller (1969): 14. Alternatively Schoff (1912): 32, 115–116, claims it is a corruption of the manuscript and that the reference was probably originally relating to a Charibael, Elisor, or Eleazus, common names of South Arabian monarchs.
- 29 Seland (2010): 21–22.
- 30 Sidebotham (1986): 130–31 – Plin. *HN* 6.31.141.
- 31 Avanzini (2007): 25–27; Avanzini (2008b): 612.
- 32 Avanzini (2016): 117–118, 122.
- 33 Fraser (1972): 180 – *FGrH* 627 F 2, § 32 (Athen. 200 F); (F 1 (39); Athen. 205 E).
- 34 *P. Cairo Zen.* IV 59532; Fraser (1972): 180 n.386; Raschke (1975): 241, suggests it was perhaps a locally bred dog but of a species which originated in India.
- 35 Reger (2005): 275 – *P. Cairo Zen.* I 59009d 10–13 (*murou kinnamōmou*); *P. Cairo Zen.* IV 59536 10–20 (cassia); see also *P. Hib* II 271. Young (2001): 20, is highly sceptical that this is the same product, but suggests it may be another plant from East Africa or southern Arabia.
- 36 Sidebotham (1986): 2; McLaughlin (2010): 26.
- 37 On this confusion see Mayerson (1993); Schneider (2004); Schneider (2016b).

- 38 Plin. *HN* 12.51, 71. Schneider (2016b): 193–194, has expressed doubt about Pliny’s ability to make a detailed distinction when only observing the products rather than the plants themselves.
- 39 Kumar et al. (2013): 197.
- 40 Berghaus (1991): 108; Tchernia (1995a): 155.
- 41 Ray cited in Tchernia (1997b): 261 n.29.
- 42 P. Gupta (1991): 123.
- 43 Brancaccio (2005): 55–69. More generally on Egyptian goods in Indian see Bresciani and Betrò (2004); also Puskás (1987): 146–147.
- 44 Peacock and Williams (2007); Avanzini (2008a); Salles and Sedov (2010); Strauch (2012).
- 45 Tchernia (2016): 229, rightly doubts that the hostile Gedrosian coast (southern coast of modern Iran) was ever regularly used by vessels for coasting.
- 46 Cobb (2014): 89–116. The North-east Monsoon winds blow from November to April/May.
- 47 See for example Schoff (1912): 3, 5–6; Warmington (1928): 38; Miller (1969): 16; Salles (1996): 264.
- 48 Strabo 2.3.4–5.
- 49 Habicht (2013): 199; see also Sidebotham (2011): 17.
- 50 *Periplus* 57; Plin. *HN* 6.26.100, 104–105. Habicht (2013): 201, asserts that despite a few sceptics such as Tarn, the prevailing view is that this is a reference to the discovery of the monsoon winds.
- 51 Mazzarino (1997): 72–79; for a further discussion of this theory see Tchernia (1995b): 992–994; Tchernia (1997b): 250–260. In counter to this theory, Habicht (2013): 202, asserts that Hippalos was in fact a not uncommon name in Egypt.
- 52 See, for example, Fantasia (2004): 47–48; Strauss (2007): 242; Sidebotham (2011): 15; Habicht (2013).
- 53 Mooren (1972): 133; Kearney (2004): 42.
- 54 Raschke (1978): 660–661 – see for a review of earlier scholars who give credence to the ‘discovery’ traditions.
- 55 Murray (1887): 554 (beginning of the Christian era); Warmington (1928): 44–49 (reign of Claudius); Charlesworth (1928): 92–100 (c.20–10 BCE); Thorley (1969): 212 (last years of BCE); Puskás (1987): 154 (late Republican, early Augustan period); Phillips (1997): 448 (not directly tied to Hippalos, but the monsoon discovery dated to late second century BCE); Kolb and Speidel (2015): 118–119 (second century BCE); Malekandathil (2015): 345; Gurukkal (2016): 101, 110, 114, 123 (no cross-oceanic voyages until Roman period). See notably Rostovtzeff (1957): 97, who connects the discovery to just before or during the reign of Domitian; *contra* Habicht (2013): 202, who points out that the name Hippalos is not uncommon in the first half of the second century BCE, and acknowledges the tentative possibility that the ‘discovery’ made by Hippalos may reflect the development of a separate route that pre-dates the ‘discovery’ made by Eudoxos.
- 56 Warmington (1928): 43–51.
- 57 Plin. *HN* 6.24.84.
- 58 Habicht (2013): 202.
- 59 Strab. 2.3.4–5.
- 60 Habicht (2013): 198.
- 61 See Schoff (1912): 3, 5–6; Rougé (1988): 68–69; Singh (1988): 21; Salles (1996): 264; Ball (2000): 132; Sidebotham (2011): 38; and Marcotte (2016): 172–173. *Contra* Hourani (1995): 25.
- 62 Hdt. 4.44; Parker (2008): 14–18, notes that greater credence has been given to Scylax’s journey on the basis of a stela found at Suez. *Contra* Salles (1996): 254, who doubts this inscription can be connected to Scylax’s journey. Romm (1992): 84–85, suggests the more fantastical aspects of Scylax’s account of India may have been intended to appeal to a Greek audience.

- 63 Tchernia (1995b): 991, 995–996; Tchernia (1997b): 256; Hourani (1995): 25. Arrian stated (*Indica* 21.1) that Nearchus' fleet had to wait until the summer trade winds had subsided, reporting that they set out in the twentieth day of the Athenian month of Boedromion (during October). However, in the *Anabasis* (6.21.1–3) he claims that Nearchus waited at Patala till winter (setting of the Pleiades – November) before setting out, more in accord with what is known of monsoon weather patterns in the Arabian Sea; this is also what is reported in Strab. 15.1.17.
- 64 See Schoff (1912): 3, 5–6; Thorley (1969): 212–213; Puskás (1987): 151. Also Salles (1996): 264, who had argued that there was resistance to Graeco-Egyptian merchants entering the system. Singh (1988): 21, argued that Roman success ruined Arabian merchants. See also Ball (2000): 132; and Sidebotham (2011): 38, who suppose that the Arabs engaged in spreading economic misinformation. *Contra* Hourani (1995): 25, who regarded this notion as absurd. Raschke (1978): 662, argued that Ptolemies were perfectly aware of the monsoon winds, but economic conditions meant trading with India was less frequent.
- 65 Hourani (1995): 26–28; Curtin (1984): 99. Also Casson (1989): 284–291; and Fauconnier (2012): 84.
- 66 Tchernia (1995b): 996–998; Tchernia (1997b): 257; see also Tarn (1938): 369–370; and Whittaker (2004): 154–155. Kosmas *Christian Topography* 2.133.
- 67 Strab. 2.3.4.
- 68 Strabo (17.1.13) does mention hearing, while he was in Syene (mid-20s BCE), that 120 vessels set sail from Myos Hormos to India each year, whereas under the Ptolemies only a few dared to do so. Strabo's comments can be understood to represent a significant uptake in commercial activity in the Augustan period. However, these should probably not be taken beyond the impressionistic and nor should attempts be made to try and quantify the difference between late-Ptolemaic and Roman period trade. One, there is likely an element of the rhetorical in Strabo's description; he wanted to praise Augustus' good management of Egypt and denigrate the Ptolemies. Two, what were the capacities of these ships and were they all Egyptian, as opposed to Arabian or Indian? Three, his comment is made in the context of half a decade's worth of Augustan rule – should we really imagine the number of ships increasing by fifty to a hundred-fold solely within this short space of time? Probably there were more than just a 'few' ships sailing from the Red Sea ports to India (and elsewhere) during Cleopatra VII's reign.
- 69 *SB V* 8036 = *I. Portes* 49.
- 70 Otto and Bengtson (1938) – 110/09 BCE. Mooren (1972): 127–133; Ricketts (1982): 161–166 – 74/73 BCE. Fantasia (2004): 48 – 45/44 BCE. See also Sidebotham (2011): 37, where he proffers a date soon after Eudoxos' voyage (116 BCE). In addition, see Sidebotham (1986): 8–9, 175; Habicht (2013): 203–205.
- 71 *OGIS* 186, Lines 3–5. Kallimachos appears to have held offices in the Thebiad, the Eastern Desert, and Red Sea between 62–49 BCE – Cohen (2006): 49 – *I. Philae* 52, 53, 56. See also Bingen (2007).
- 72 Begley (1983): 479–481; Will (2004a): 326–328; Will (2004b): 434–436; Williams (2004): 448; also Wheeler, Ghosh, and Deva (1946).
- 73 For these amphorae see Begley (1996a): 22; Sidebotham (1996b): 101; Will (2004a): 328–329; Will (2004b): 436; Williams (2004): 444.
- 74 Begley (1996a): 16–17; Begley (2004a): 4–6; Begley (2004b): 114, 159–160; see also Wheeler, Ghosh, and Deva (1946): 22–27; Tomber (2008): 149.
- 75 For a more fulsome discussion of this see Cobb (forthcoming).
- 76 Ford et al. (2005): 393–398; Coningham, Manuel and Shoebridge (2015): 43–46 (indigenous ware); Ray (1994): 59–61; Magee (2010): 1044, 1051–1053 (Mediterranean influence, but indigenous production); Krishnan and Balvally (2015): 233–234 (may also have been produced in the Ganges region).
- 77 Avanzini (2016): 117–118, 122.

- 78 Raschke (1975): 244; Whittaker (2004): 163, 167; McLaughlin (2010): 29, 169.
- 79 Kidd (1988) – *Posidonius* 243–244 = Strab. 2.3.4. Thiel (1967): 19–21, notes that the Ptolemies may simply have been claiming their rightful property.
- 80 Strab. 2.3.5.
- 81 For earlier theories about Ptolemaic monopolies see Wallace (1938); Rostovtzeff (1957); and Fraser (1972). These earlier views have been more recently re-examined by Bowman (2010): 104. Manning (2011) has also argued for a more nuanced view of the relationship between subsistence, command, and market aspects of the Ptolemaic economy.
- 82 Kidd (1988): 244.
- 83 Von Reden (2011): 436–467, notes that Ptolemaic state activity in the Eastern Desert and Red Sea may have stimulated commercial exchange. For the view that the incense/perfume retail market was monopolised by the Ptolemaic state see Wilcken (1925); Sidebotham (1986): 5; Evers (2016): 122, 149–152. The leasing of market monopolies to private individuals for the retail of perfume existed in both Ptolemaic and Roman Egypt.
- 84 Gates-Foster (2012): 202.
- 85 Casson (1989): 12; Kearney (2004): 42–46; Smith (2009): 88–89; Tomber (2008): 18.
- 86 On this see Casson (1993); and Cobb (2016). Edfu received notable investment in the early Ptolemaic period, including the presence of a royal bank and the settlement of colonists (*klērouchoi*) – Manning (2010): 113.
- 87 Bagnall et al. (1996): 317–322; Cohen (2006): 320–321.
- 88 Wright (2003): 228–229. The fortlet at Abu Midrick has walls but not towers – Reddé (2006): 237–238.
- 89 Herbert and Berlin (2003b): 44–45, 127 – they also note the construction of a stone gate by Ptolemy VIII.
- 90 Strab. 17.1.45.
- 91 Murray and Warmington (1967): 29–30. The uprising in the Thebiad between 206–187 BCE may also have exacerbated the decline of the Edfu–Berenike route – Durand (2012): 87. On the routes from Koptos see Brun and Reddé (2011): 9–13.
- 92 For these developments see Cuvigny (2006a); Cuvigny (2011a); Cuvigny (2012).
- 93 The canal was established, or re-dug on the route of earlier canals, by at least by 112 CE – Posener (1938): 259–273; Mayerson (1996): 119; De Romanis (2002): 22. Several Classical authors report the tradition that some form of canal existed from the Pharaonic period – Arist. *Mete.* 1.14.20–28; Strab. 17.1.25–26; Plin. *HN* 6.33.165 (Pharaoh Sesostris = Senuosret III?); Hdt. 2.158–159; Diod. Sic. 1.33.7–12 (Pharaoh Necho II). Darius I is said to have restored it, followed by Ptolemy II – probably confirmed, in the latter case, by the Pithom stele (270/69 BCE) – Cohen (2006): 308; Sidebotham (2011): 179. Aubert (2015): 40, has expressed doubt about the viability of the commercial use of this canal. However, for a critique of this view see Sidebotham (2016): 916–917. See also De Romanis (2015).
- 94 For the Via Nova Hadriana see Sidebotham and Zitterkopf (1998): 353–366; Sidebotham, Zitterkopf and Helms (2000): 115–126; Young (2001): 78–79. There is some debate as to how frequently this route was used by merchants.
- 95 The site of Pattanam predominantly features Koan and Italian Dressel 2–4 amphorae, although the latter appears in a comparatively higher ratio. For a discussion of this evidence see Tomber (2015): 386.
- 96 Prickett (1979): 296; Whitcomb and Johnson (1979b): 5.
- 97 Peacock and Blue (2006b): 65.
- 98 Sidebotham (2011): 143.
- 99 Peacock and Blue (2006d): 174.
- 100 Peacock (2011a): 47.
- 101 Peacock (2011b): 85–87 – Chicago excavation – 1 Ptolemy III; Southampton excavations – 1 Ptolemy VI Philometor; 2 Cleopatra VII. See also Peacock and Blue (2006c): 73. Cobb (2015b): 407.

- 102 Cobb (2015b): 362–418.
- 103 Peacock et al. (2006): 67–74, 87–90.
- 104 Sidebotham (2000): 145–146; Sidebotham (2007): 44, 47, 54; Sidebotham and Wendrich (2007b): 368. See also Barnard and Wendrich (2007): 15 (Ptolemaic levels covered by trash); Barnard and Rose (2007): 183 (later reuse).
- 105 Sidebotham and Zych (2016): 7–8, 16–17, 21–24, 27, 32; Zych et al. (2016): 322–326.
- 106 Sidebotham (2007): 37, 39, 69; Sidebotham (2011): 56.
- 107 Sidebotham (2007): 147–148; Sidebotham and Wendrich (2007b): 369–370; Sidebotham (2008): 313; Sidebotham (2011): 60–61.
- 108 Sidebotham (2000): 145–147; Sidebotham (2007): 51, 56, 77; Tomber (2011): 115.
- 109 Sidebotham, Hense and Nouwens (2008): 173; Sidebotham (2011): 57–61; Sidebotham and Zych (2012): 137; Sidebotham (2014): 614–616; Rądkowska and Woźniak (2011): 20, 23–24.
- 110 Sidebotham (1986): 52–53 – see also Sidebotham (2011): 62; Sidebotham (2008): 315; McLaughlin (2010): 30–31, also 75 – for the theory that Berenike did not begin to operate unit after the purported destruction of Aden; Strabo 17.1.45.
- 111 See Tait (1930) – *O. Petr.* 220–303.
- 112 Augustus – Berenike 3 – Myos Hormos – 2; Tiberius – B 12 – MH 6; Caligula – B 3 – MH 3; Claudius – B 7 – MH 23; Nero – B 2 – MH 3; late Julio-Claudian – B 3.
- 113 Wilson (2015): 14–20; *contra* Burstein (2008b): 257. See also Bernand (1972): 15, on the limited Ptolemaic graffiti along the route. Furthermore, Bülow-Jacobsen (2013): 559–561; see also Lassányi (2012): 249. In addition, Cuvigny (2014): 183; Cuvigny (2011b): 4–5.
- 114 Pliny *NH* 6.26.102–103; Strabo 17.1.45.
- 115 Sidebotham (1986): 61; Sidebotham (2011): 158. See also Bülow-Jacobsen (2013): 561. Cuvigny is of the view that this route superseded the Koptos–Myos Hormos route by the late Augustan period – Cuvigny (2010): 245.
- 116 Tchernia (1997a); Tchernia (1997b); Whittaker (2004): 21. Fitzpatrick (2011): 37, points to the liquidity crisis of 33 CE as evidence for the involvement of many in the senatorial elite in financing – Tac. *Ann.* 5.16–17. However, it is important to note that Tacitus does not make any explicit or implicit connection to the Indian Ocean trade in this context.
- 117 Rathbone (1983): 89; Tchernia (1997a): 238; Tchernia (2016): 42–48; Alston (2007): 7; Schörlé (2015): 49–51; Evers (2016): 118–121.
- 118 For a more detailed review see Cobb (forthcoming).
- 119 De Romanis cited in Brun (2006): 189, n.7; *ID* 1526 – Alexandrian inscription by Italian businessmen – 127/26 BCE; *I.Philae* I 19, 8, 33 – Lachos as *Strategos* (124–116 BCE). It, of course, needs to be borne in mind that the dedication by the Italian merchants who gave thanks to Lachos is a few years prior to our evidence for his holding the office of *strategos* of Thebes (where he would have had oversight, via subordinate officials at least, of the Red Sea trade).
- 120 Strab. 2.5.12.
- 121 Marcus Julius Alexander – *O. Petr.* nos. 252, 266–267, 268(?), 270(?), 271, 282; Sidebotham (1986): 84–85; *OGIS* 663 (Tiberius Julius Alexander as *Epistrategos* of the Thebiad in 42 CE). Alexandrian matrons – *SEG* 8. 703; Young (2001): 58–59. The latter inscription is fragmentary so it is not clear what Apollinarios was *eparchos* of, but it can be noted that *Ἐπαρχεία* can sometimes be equated with the Latin office of *praefectus*.
- 122 Cobb (forthcoming). A similar pattern is observable from the customs receipts found as part of the ostraka recovered during the 1999–2001 seasons.
- 123 Thorley (1969): 211, 213, 217; Schmitthenner (1979): 104–105; Phillips (1997): 450; Fitzpatrick (2011): 51.
- 124 Rostovtzeff (1957): 53, 66, 94; Bowersock (1983): 46–47.

- 125 Strabo 16.4.22. See Sidebotham (1986): 121; *contra* Sidebotham (2011): 177.
- 126 *Res Gestae* 26.5. In general see Sidebotham (1986): 120–130.
- 127 Relations between the Ptolemies and the Nabataean Arabs were, at least at certain points hostile – Agatharkhides 5.90a + b = (a) Diod. Sic. 3.43.1–5, = (b) Strab. 16.4.18; Plut. *Vit. Ant.* 69.2–3. Of possible interest is an inscription from Koptos dating to the thirty-eighth year of Ptolemy VIII (133 BCE). It mentions a dedication by Ptolemy and Tryphon, important members of the Ptolemaic court (commanders of the bodyguards, doorkeepers and chamberlains), who had been sent to escort ‘all the friendly gifts (*xénia*) which had been carried over from the country that produces aromatics’ – transl. from Fantasia (2004): 49. Inscription from the National Museum of Warsaw, inventory number 198728; see also Lajtar (1999).
- 128 On this stele see Hoffmann, Minas-Nerpel and Pfeiffer (2009): esp. 80, 83–85.
- 129 Kolb and Speidel (2015): 125; Speidel (2015): 107.
- 130 Speidel (2015): 100, suggests that good relations between Augustan Rome and the Nabataean Kingdom improved security in the Red Sea.
- 131 Kolb and Speidel have pointed to the opinions of Roman jurists, most notably Sextus Pomponius, as evidence for the importance of Rome establishing friendly or at least formal relations with other polities as a means for ensuring the safety of merchant property, otherwise it could technically be seized without recourse. However, they do acknowledge that such relationships were not necessarily prerequisites for trade – Kolb and Speidel (2015): 129–131; Speidel (2015): 113–116. Indeed, relationships between merchant communities and the local authorities may well have been more important than interstate relations in this regard. Unfortunately the literary sources offer very few details about what was actually discussed by ambassadors who arrived in the Roman Empire.
- 132 See for example Bowman and Rathbone (1992). For an overview see Capponi (2005): 25–49.
- 133 Cuvigny (2006c): 295–297.
- 134 Sidebotham (1986): 67 – *I. Pan* 68. *O. Krok* 47; Cuvigny (2006c): 295–300; Maxfield (2001): 143–170.
- 135 Cuvigny (2006c): 302; *CIL* X 1129 = *ILS* 2698.
- 136 Meredith (1952): 106; Maxfield (2001): 147; *SB* X 173 = *SEG* XX 670 = *I. Pan* 51.
- 137 Plin. *HN* 37.32.108; Maxfield (2001): 147.
- 138 Strab. 17.1.45.
- 139 On these northerly winds see Casson (1984a) and (1984b); and Whitewright (2007). For the greater commercial significance of Berenike see De Romanis (1996): 183; Cuvigny (2006b): 13.
- 140 Bingen (2007): 288. Gates-Foster (2012): 200, also notes that by the mid- to late Ptolemaic period local officials in the south began to assert a greater degree of regional authority.
- 141 *Epistrategoi* during the Augustan period seem to have been stripped of their military power, and to have simply become civilian officials – Capponi (2005): 36–38.
- 142 For these ostraka see Bagnall, Helms and Verhoogt (2000) and (2005). Only a few such ‘passes’ were found in the 2009–13 seasons – Ast and Bagnall (2016).
- 143 As has already been noted, a number of Ptolemaic-era inscriptions refer to supervision of the mines, quarries and the bringing of aromatics and other goods into Egypt suggesting, unsurprisingly, a state interest in monitoring such activity.
- 144 For this document see Harrauer and Sijpesteijn (1985); Casson (1986) and (1990); Thür (1987); De Romanis (1996) and (2012) and (2015); Rathbone (2000); Morelli (2011). For the collection of the *tetarte* at Leuke Kome see *Periplus* 19. Nabataean Arabia, while not annexed formally until 107 CE, was very much a subordinate client state of Rome. On the possible location of this site see Nappo (2010).
- 145 Sidebotham (1986): 5–6. A 25% tax rate was not uncommonly levied on goods in-kind in the Ptolemaic period – Wallace (1938): 219.

146 Wallace (1938): 256.

147 Capponi (2005): 149.

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3 Indian Ocean trade

The role of Parthia

Leonardo Gregoratti

This spectacle of the Roman army arrayed on one side, the Parthian on the other, while these two eminent leaders not only of the empires they represented but also of mankind thus met in conference [...] it was my fortunate lot to see.¹

With these words the Roman historian Velleius Paterculus describes the meeting (of which he was an eyewitness) between Augustus' adopted son Gaius Caesar and the Parthian King Phraates V, at the Euphrates in 2 CE. The delegates of the two rival super-powers, Rome and Parthia, met on an island in the river to mark the limits of the spheres of their political influence that divided the whole known world.² This passage has many extraordinary aspects to it, and offers an invaluable attestation of the Parthians' historical relevance and of the role that should be acknowledged to them.

In these few words, although written much later, the sincere enthusiasm of a young *tribunus* is palpable (he later became a chronicler of historical events) – sent from Rome into the fabulous East, he was at the limits of his own world. Certainly, his young mind and therefore his enthusiasm and expectations were deeply influenced by the readings he surely had made: by Herodotus' accounts of the ancient Persians and the exotic lands beyond the Euphrates, or maybe by more novelistic stories about Asia and those “far away eastern lands”.

Nonetheless, these few lines represent one of the small number of unbiased portraits of the Parthians, the “barbarians” of the East, showing their relevance as Rome's political rivals for supremacy in western Asia and ideological competitors for the leadership of the whole of humankind.³ After travelling all the way to that island on the Euphrates, as member of Gaius Caesar's retinue, our Velleius found himself in a world at the periphery of the empires, where the Romano-centric point of view adopted by intellectuals in the capital revealed all its artificiality and lack of meaning. He decided then, alone among his contemporaries, to represent that genuine reality, a reality he had experienced living and speaking with the people of the frontier, who lived close to the other “masters of the world”.

Sadly, not so many modern scholars decided to follow in their ancient colleague's footsteps. For many years, the study of the Parthian world, in precarious balance between the disciplines of Classics and Iranian studies, has been relegated to a

marginal place in both disciplines. Studies of this empire have remained deeply affected by an unmistakable Romano-centric point of view.⁴

Fortunately, this peripheral status has begun to change in more recent scholarly studies. The Parthian Empire, a state lasting five long centuries, has in recent years slowly emerged from the shadow of history to regain its cultural and historical identity. In 1996, the conference *Das Partherreich und seine Zeugnisse* organised by Josef Wiesehöfer, which took place in Kiel, Germany, was the starting point for a serious investigation concerning the Parthian Empire and its role in ancient history. The conference affirmed the necessity for a multidisciplinary approach that implies the collaboration of scholars working not only on different fields and disciplines, but also investigating different political and cultural realities within and outside the borders of the Arsacid state.⁵

This is in order to be able to deal with Parthia as a composite reality, a confederation of political and cultural subjects interacting with each other and with the central authority, embodied by the Arsacid Great King. This element promoted the discussion around the idea of the Parthian state as a “network empire”,⁶ allowing the scholars to abandon the traditional “monolithic” conception of a chaotic lesser state always on the brink of collapse. In parallel to this new approach, Charlotte Lerouge in her book, *L'image des Parthes dans le monde greco-romain*, investigated and reaffirmed the necessity of establishing an independent point of view on the Parthians by discussing the role played by western sources in our knowledge of the “eastern barbarians”.⁷ She underlined the need of understanding the prejudices of the western authors by searching for alternative sources to integrate the Graeco-Roman ones.⁸

These two new approaches have completely revolutionized the point of view on the Parthian Empire and led to a sort of “Parthian renaissance”. The reaffirmation of the role of the Arsacids in the history of the whole ancient world, in particular, can also provide some interesting elements to the study of the Indian Ocean trade, the “global topic” par excellence in ancient world studies.⁹ The new point of view on the Parthians can somehow integrate the geo-political scenario around the Indian Ocean trade, proposing a more composite situation where the role of the Arsacids and their political subjects, the so-called “Parthian commonwealth”,¹⁰ or maybe “Parthian federation”,¹¹ can be better defined.

Studies of the Indian Ocean trade in the early centuries of the first millennium CE have for many decades, especially since Wheeler's (and then Casal's) excavations and publication of the finds from Arikamedu, been focused on Indo-Roman trade. It could be argued that a whole new field of studies, focused on mainly the traffic of goods and men between Roman Egypt and India, has developed, and with good reason.¹² In ancient times, this was probably the main route crossing the ocean.¹³ A sort of “sea highway” was able to directly connect Asia, the producer of various goods, with the most powerful empire of the West where the demand for those goods was growing exponentially: Rome.¹⁴ Such a Romano-centric, or maybe better Egyptian-centric approach to the topic is also imposed by the situation of the sources.

The extraordinary wealth of sources and documentation from Graeco-Roman Egypt has played an important role in scholarly understanding of Indo-Roman trade.

Even more significantly, the intensive archaeological exploration of the Red Sea harbours, Berenike and Myos Hormos, has offered rich and detailed information concerning Indian Ocean trade and the relationship between Egypt and other trading places on the shores of the Indian Ocean, such as India, southern Arabia and the Persian Gulf.¹⁵ The materials found in the field have been integrated with the priceless information provided by papyri documents, like the Muziris Papyrus to mention only the most famous example¹⁶ – a type of source that due to its very nature is able to provide impressive data, but is limited to the Red Sea/Egypt geographical area and the routes connected with it.

Furthermore, the well-known fundamental text that constitutes the basis of the discipline, the *Periplus Maris Erythraei*, was written by someone involved in the trade to and from Egypt in the mid-first century CE.¹⁷ The author was mainly interested in providing useful information about the places along the main Egypt–India “sea highway”, a route he seems to have known best, due to his direct first-hand experience.¹⁸ The text is the product of Egyptian merchant circles and therefore expresses the point of view of businessmen whose interest in other trade routes and other co-protagonists of the Indian Ocean trade, like Parthia for example, was very limited.¹⁹

Also in this field of studies, the research is developing quickly, exploring new geographical areas and adopting new perspectives by relating the results of excavations and surveys at different sites. As the Norwegian scholar Eivind Seland has shown in his very well-documented overview on the topic, new elements of discussion and the availability of new sources and materials, rendered the discipline mature for a multidirectional and polycentric approach that explores the role of other political entities within the Indian Ocean trade.²⁰ This is in order to render the discussion less influenced by the overwhelming “Rome–India trade axis” approach.

It seems clear that both fields of studies – the Parthian Empire and the Indian Ocean – have significantly developed in the last decades adopting new perspectives. In both cases, previous and more limited points of view have been put under discussion in favour of wider approaches that focus on the relationships among different areas and communities. In the case of the Indian Ocean, this led scholars to think in terms of a trans-oceanic network, multiplying the interconnections. In the case of the Parthian Empire, a polycentric view has prevailed, involving examination of the co-existence of different local political subjects within the Parthian political “confederation”.²¹

Perhaps this recent fragmentation of the once quasi-monolithic Parthian world can add another *tessera* in the mosaic of Indian Ocean trade. Most of the studies relating to the materials and sites on the shores of the Indian Ocean demonstrate connections with an area defined generally as Mesopotamia or the Persian Gulf. The recent trend among scholars of reaffirming the role of the Parthian Empire and its subjects in the global history scene can also be applied to Indian Ocean studies in order to establish, as far as the scarce sources allow, what part the Arsacid super-power played in sea trade. The topic is of course extremely vast, as is the geographical scope of the investigation into the Indian Ocean trade. Nonetheless, one of the purposes of this chapter, far from being a comprehensive dissertation on

the matter, is to point out and connect up a series of facts and historical circumstances in order to better define the political subjects involved in the north-western sector of Ocean trade: Mesopotamia and the Persian Gulf.

First of all, it is necessary to draw due attention to south Mesopotamian harbours as key terminals for the Indian Ocean routes by putting together some scattered evidence appearing in ancient sources. These traffic points were ruled directly by the Arsacids or belonged to a political entity, the kingdom of Characene, which can be defined as part of the Parthian commonwealth or federation, a network including all the minor autonomous authorities depending to some degree on the Arsacid Great King.²²

Of course when dealing with Indian Ocean connections, it is appropriate to start from the *Periplus*. Even a work characterized by such an Egypt-centric perspective offers a few lines dedicated to the Persian Gulf route: obviously a secondary one in the author's mind, but whose existence could not be omitted entirely. This fact in itself is already telling. It seems clear, from the text that even the more distant destinations, like for example the remote harbours of East Africa, were clearly not of primary relevance for the author, but they nonetheless belonged to his trade horizon and had to be mentioned in his work. A reader of the *Periplus*, a merchant or businessman operating on the main route, would surely have met merchants and goods coming from southern Mesopotamia or directed there. Consequently, in order to provide a complete description of the trade context, such secondary traffic branches could not be left out. What the anonymous author writes is interesting:

Beyond the straits (the Hormuz Straits), that very great and broad sea, the Persian Gulf, reaches far into the interior. At the upper end of this Gulf there is a market-town designated by law, called Apologos, situated near Charax Spasini and the River Euphrates. Sailing through the mouth of the Gulf, after a six-days' course there is another market-town of Persia called Ommana. To both of these market-towns large vessels are regularly sent from Barygaza.²³

The Persian Gulf is in itself a suitable way to reach the interior of the Asian continent and this for the author seems to be the main function of the Gulf in the Indian Ocean traffic system. Crossing the straits and sailing the Gulf meant getting in connection with inner Mesopotamia and its cities, in particular Seleucia on the Tigris, the largest and most populous metropolis outside the Roman borders.²⁴ The places mentioned seem to be instrumental in this role.

The most important trading station in that area is the market-harbour Apologos, close to the river Euphrates where goods can be transferred in order to continue towards the mainland.²⁵ This market-town is explicitly connected with Spasinou Charax, the capital of the Arsacid client kingdom of Characene. Apologos is defined as *emporion nomimon*, a place where trade was regulated by specific laws and where transactions took place under the supervision of representatives of the political authority.²⁶ This fact suggests that Apologos was the only place where international trade activity was authorized, by Characenian kings, by Parthian, or

both, at the time of the *Periplus*, and justifies the fact that it is the only south Mesopotamian harbour mentioned. Other sources, for example, the Palmyrene inscriptions, mention other terminals connected with Spasinou Charax, like Teredon and Forat.²⁷ It is interesting that the harbour of Apologos appears only in the *Periplus*. Perhaps the site and its relevance, connected maybe with its special status, were short-lived and contemporary to the *Periplus* or perhaps Apologos should be identified as one of the other sites mentioned in the Palmyrene texts.

The other market-town of “Persia”, that is, Parthia/Characene, is Ommāna on the southern shore of the Persian Gulf. Recent discoveries lead to the place, whose name appears frequently in the writings of western geographers,²⁸ being identified with the site complex ed-Dur-Mleiha-Dibba,²⁹ at the mouth of the Gulf.³⁰ Archaeological excavations at the site of Mleiha, in the hinterland, revealed a wealthy and structured settlement, probably the administrative centre upon which the two other harbours, ed-Dur and Dibba, on the Persian Gulf and Gulf of Oman, depended.³¹ In all these sites, the material evidence and the large presence of imported pottery and objects attest to intense contacts with Parthia, the Mediterranean area and India in the early centuries of our era.³² All these sites, according to the anonymous author, were under the political influence of the Parthian Empire if not part of the Arsacid “confederation”. The Indian imports in particular seem to confirm the anonymous *Periplus* writer’s other words.³³ From Barygaza, a relevant trade centre in north-eastern India, convoys of trade ships regularly sailed for the Gulf, reaching ed-Dur-Mleiha-Dibba (Ommāna) and the capital of Characene.

This passage, and the reference to direct contacts from India to Characene, mirrors a much later text from Cassius Dio, referring to the historical events that took place only a few decades after the writing of the *Periplus*. In 116 CE after a series of extraordinary victories and a quick descent along the Euphrates and after conquering Ctesiphon, Seleucia and all Mesopotamia, that is to say the core of Parthian political and economic power, the Roman Emperor Trajan reached the Gulf shores.³⁴ The historian writes:

Athambelus, the ruler of the island in the Tigris, remained loyal to Trajan [. . .] and the inhabitants of the Palisade of Spasinus, as it is called, received him kindly; they were subject to the dominion of Athambelus. Then he came to the ocean itself, and when [. . .] had seen a ship sailing to India, he said: “I should certainly have crossed over to the Indi, too, if I were still young.”³⁵

Cassio Dio’s information is complementary to that of the *Periplus*. The city of Spasinou Charax appears, as well as the centre of the local kingdom of Characene. The Emperor himself is a witness to the fact that ships and goods sailed back to India from northern Gulf harbours. If one of the purposes of the whole Parthian war, as has been suggested, was to lay hands on the terminals of the sea routes that remained outside Roman control,³⁶ then it is likely to think that the traffic through the Gulf involved a not negligible percentage of the movements of goods to and from India. This last text integrates the information given by the *Periplus*: the two

passages combined demonstrate that an active and intense sea route between Characene/Parthia and India, through the Persian Gulf station of Ommana, existed and it ran in both directions. Besides, the texts state clearly that the Parthian and/or Characene political authority ruled over this trade route and its main stations.

A third text can be added to the two already mentioned. It refers to the events which occurred a few years before Trajan's campaigns and the facts narrated by Cassius Dio. Between 91 and 101 CE, with the campaigns to the West operated by the General Ban Zhao, the Parthian Kingdom entered the political scene of the Chinese Han Empire (*Anxi* in the Chinese sources).³⁷ Around 97 CE, Gan Ying, an important Chinese court dignitary was placed at the head of a diplomatic mission with the task of establishing contacts and business relationships with that realm which the Chinese knew well to be the final destination for most of the goods they were exporting to the West: the Kingdom of Da Qin – the Roman Empire. His narration was later collected in the more general historical work, the *Hou Hanshou*, the official annals of the Later Hans.

Gan Ying states that the westernmost place his mission was able to reach was the country of *Tiaozhi*, which most modern scholars identify with Mesene/Characene, on the northern shores of the Persian Gulf.³⁸ The Chinese knew that the Parthian king wanted to avoid direct contacts between the powerful empires.³⁹ A commercial agreement and a direct collaboration between the Romans and Chinese would have deprived the Parthians of the high earnings related to long-distance trade and the Arsacid crown of the substantial revenue derived from the taxation of the transported goods.

Unfortunately for Gan Ying and his explorative mission, upon their arrival in Mesene, the region had been occupied by the Great King's troops.⁴⁰ It is thus likely that the officials and merchants with whom the Chinese mission was in contact were government agents or men properly trained to provide information and answers in line with Arsacid interests. In fact, the report of Gan Ying says:

He reached Tiaozhi next to a large sea. He wanted to cross it, but the sailors of the western frontier of Anxi (Parthia) said to him: The ocean is huge. Those making the round trip can do it in three months if the winds are favourable. However, if you encounter winds that delay you, it can take two years. That is why all the men who go by sea take stores for three years. The vast ocean urges men to think of their country, and get homesick, and some of them die.⁴¹

Apart from the cunning trick adopted to fool the Chinese diplomat and convince him to retrace his steps, if we accept that Gan Ying reached Mesene/Caracene and intended to "cross the sea" to reach Egypt and the Roman Empire, some consideration can be made. One fact is undeniable: a direct connection by sea between southern Mesopotamia/Characene and the Roman Empire, almost certainly Roman Egypt, existed and was used, if Gan Ying upon arriving in Mesene felt the need to gather information about this possibility to reach Roman territory. It is very probable that the Chinese envoy heard about this sea route from the local population or from the merchants and officers he came into contact with during his journey.

He probably did not witness the sailing of a ship from the shores of the Persian Gulf, like Trajan did twenty years later. If he had a direct experience of the harbours' activity and the connected sea route, he would have surely had the chance to recognize the truth. Another possibility is that during the Parthian occupation of Characene and its harbours, in the last third of the first century CE, the traffic on the sea routes departing from Mesene had been reduced. Perhaps this made the role of southern Mesopotamia in connecting Parthian cities, with India on one side and Egypt on the other, less evident for a foreign visitor.

The Chinese seem to be the only source to mention a direct route between Mesene and Roman Egypt, while the Classical texts that we have seen mention almost exclusively direct connections with India. We can assume that in any case the route existed, but was not intensively used in comparison with that for India. The longer distances and the need to cross vast areas of open sea, while the connection with India offered the possibility of navigation along the coast, as well as the need to wait for favourable winds to reach Egypt from southern Arabia and to get back probably dissuaded most Mesopotamian traders from taking that route. In the light of these considerations, the motivations given to the Chinese ambassador do not seem so abstruse. The local merchants probably thus exaggerated the real risks, the same ones that prevented them directly reaching Roman Egypt that way.

Another important element that emerges from Gan Ying's report is the fact that he seems to be aware that he has reached the western frontier of the Parthian kingdom. The sailors he interrogates are "sailors of the western frontier of Anxi (Parthia)"; this would lead one to think that he knew he was close to the border with the Roman Empire. Nonetheless, he did not attempt to travel up the Euphrates to reach the Syrian border, along with Palmyrene caravans. Probably according to Chinese knowledge of the routes or in conformity to specific instructions he received from the court, he was interested in entering the Roman Empire through Egypt and not through any other access point. It may be that the final destination he was trying to reach was not the Roman Empire in general but only Egypt as the main arrival point for the goods from the East. Perhaps in the Chinese concept of the Western world the two geographical entities were not seen as different.

A few other pieces of evidence from Chinese sources indicate that the existence of a sea route between Asia and Rome/Alexandria of Egypt was known.⁴² The Chinese were aware of the relevance in this context of the Egyptian ports. For the pre-Sassanid period, it seems that most of the contacts with Anxi/Parthia were made by land route, but in the case of Gan Ying, the envoy does not seem really interested in the possibility of continuing the journey towards the Roman Near East. For him the most obvious way to reach Rome and Egypt was to travel by land across the Parthian Iranian plateau as far as the Persian Gulf, then sail off and circumnavigate the Arabian Peninsula as far as the Red Sea.

It seems that, beginning with Gan Ying, the idea of a direct connection between Mesopotamia/Anxi/Parthia and Egypt/Da Qin appears frequently in Chinese sources. The reports of the later Chinese chroniclers, who were convinced that most of the trade between Parthia/Anxi and the Roman Empire occurred by sea, should

not be underestimated.⁴³ Being the commercial eastern neighbours of Parthia, the Chinese were mainly interested in the most suitable trade connections and commercial stations; thus their information provides a sort of “Oriental *Periplus*” perspective of western Asia where the Persian Gulf routes plays a fundamental role. From the Chinese point of view, at least after Gan Ying, the Characene/Mesene was a starting point to quickly reach Roman Egypt. The fact that these kinds of sources stress this direct connection by sea lets us think that this was a relevant route from East to West. Another important element is the fact that, as in the case of Gan Ying, southern Mesopotamian harbours were closely connected with land routes to and from Central Asia, which seems to be the main route westwards.

To all these textual sources by historians and chroniclers a different kind of attestation should be added: the voice of the first protagonists of the Indian Ocean trade – that is, the merchants. The Palmyrene traders, since the first century CE, led their caravans deep into Parthian Mesopotamia and reached Mesene/Characene and its harbours, where they established trade colonies. The merchants who returned to the Syrian city used to honour the businessmen and patrons who had made the enterprise and the journey practically and financially possible and successful, commissioning statues and inscriptions to be displayed in the city squares and along the streets.⁴⁴ In a couple of these texts, both dated to the mid-second century CE, a well-known “caravan lord” or “caravan protector”, M. Ulpus Iarhai, is thanked for having supported a group of merchants coming by ship from “Scythia”.⁴⁵ According to the general interpretation, the two inscriptions would prove that Palmyrene merchants reached Barbarikon and Barygaza in the north-east of the Indian continent, and that Palmyrene ships owned or equipped by fellow citizens, sailed regularly in the mid-second century to and from India.

All this scattered evidence contributes to integrate the description provided in the *Periplus* and affirm the Gulf route’s relevance for the Indian Ocean trade. The final destinations of the traffic from the Gulf harbours seem to be the same as that of the main Egypt–India route. The sources collected do not seem to make reference to the role of southern Arabia and its harbours as a regional cross-roads where merchants from the Gulf exchanged their goods. All the considered sources seem to refer to a direct connection between Characene/Parthia and Egypt at one end, and India at the other. Of course, the two systems coexisted, but nothing in our sources allows us to think that the Gulf route was a secondary branch of the main Egypt–India axis and that the purpose of the southern Mesopotamian harbours was to bring merchants and goods only as far as the southern Arabian trading points.⁴⁶

On the other side of the Indian Ocean, new archaeological discoveries in the Indian subcontinent attest to the presence of goods coming from Mesopotamia.⁴⁷ For the first centuries CE, the amount of Mesopotamian findings is not comparable with those of Roman origin. Still, some distinctive kinds of ceramics constitute genuine proof that direct or indirect contacts took place between India and Mesopotamia. The so-called “Torpedo Jars” have been found in many Indian sites: in the north-west and south-east, as well as in the south-west and in Sri Lanka. Although these types of vessels were largely used in Parthian Mesopotamia before and during the Arsacid rule, more of the Indian findings seem to be dated to a period

from the third century until the fifth/sixth century CE, when the Sassanids were already active in building and consolidating their presence in the Persian Gulf, southern Arabia and therefore along the Indian Ocean routes.⁴⁸

The research concerning Parthian-Mesopotamian contacts with India is still just beginning, but some kinds of ceramics, less widespread than the Torpedo Jars, seem to indicate that goods from west Parthia reached India before the Sassanid conquest of Iran. This would provide tangible evidence beyond the texts already taken into account, suggesting that the later well-known and solid contacts the Persians managed to build with the subcontinent and of which the Torpedo Jars are an expression, did not come out of the blue, but were developed from previous contacts during the Parthian rule in Iran. Fragments of “Glazed Pottery”, a variety of pottery widely in use in Mesopotamia for a long period during and after the Arsacid rule have been found in many sites. Like the Torpedo Jars, they have been normally dated to the Sassanid age. Some sherds of pale yellow ceramic with traces of blue-greenish glaze have been found in the citadel of Tissanharama, the capital of the kingdom of Ruhuna (270 BCE–500 CE) in today’s southern Sri Lanka. The earliest fragments are dated according to their archaeological context to the second century CE. These sherds seem to be of the same nature and origin as those found in Parthian Mesopotamia, in the Persian Gulf and in southern Arabia.⁴⁹ Sherds of similar “Turquoise Glazed Pottery” or “Parthian Glazed Ware”, are also attested to in the other Sri Lankan site of Anuradhapura in the northern part of the island.⁵⁰ These considerations on Sri Lankan Turquoise Glazed Pottery can perhaps be valid also for the findings on the continent. At Pattanam/Muziris, a site on the west coast of southern India, famous for its Roman imports, sherds of Turquoise Glazed Pottery have been found which could also pre-date the Sassanian period.⁵¹

“BI-ware”, a glazed ware, characterized by pale yellow clay and a heavy, dark green glaze which is connected with the southern Mesopotamia and Persian Gulf area, is described by Lize Hannestad and has been reported from sites in Gurajat (Junnar, Amreli, Baroda).⁵² The centre of production of this pottery, found in many locations of southern Mesopotamia and the Persian Gulf, could be, according to J.-F. Salles who found it on Failaka island, the kingdom of Characene.⁵³

Scattered, still disputed and very limited evidence, in comparison with Sassanian and Roman imports, seem to confirm, with all due caution, the existence of a sea route connecting Parthia/Characene and India, thus integrating the information provided by the texts. Of course these findings would prove only that Mesopotamian goods travelled as far as India, like the Roman imports, and, like the Roman imports, the integration of texts, inscriptions and archaeological data seems to indicate that goods and men crossed the Ocean to and from southern Mesopotamia and India. The Persian Gulf and Characene routes were thus not a mere extension of the main trans-oceanic route. The Mesopotamian traders did not limit themselves to funnelling their goods into the main traffic route, but actively travelled and traded in both directions.

All the texts taken into account make reference to some kind of political authority responsible for the promotion of trade activity in the centres and harbours of

southern Mesopotamia. The *Periplus* mentions the capital city of Spasinou Charax and alludes to an authority in charge of controlling and regulating the trade activity. A few years later, the Chinese diplomat Gan Ying alludes to a military occupation of the area by the king of Anxi/Parthian. Finally, almost twenty years later, Trajan is welcomed by Attambelos, Characene's local ruler, who clearly had deserted the side of the Great King after hearing of the successes of the Roman legions.

From the last years of the second century BCE, as attested by cuneiform documents from Babylon and by Parthian coin emissions in Seleucia on the Tigris, the Arsacids were able to establish a firm rule over the whole of Mesopotamia, including Mesenian harbours.⁵⁴ Are these references to the Great King's direct authority or to the authority of a vassal king dependent on him, enough to put into discussion the stereotyped idea of the Parthians as a mainly continental superpower, that is, central Asiatic horse-riders and therefore not skilled in seafaring or the naval trade? In other words, can we say the Parthians were directly involved in the Indian Ocean trade? The answer to the question is not easy and lies at the very nature of the Parthian rule and on the relationship between Arsacid central power and Characene royal authority.

Since its very beginning, the Parthian kingdom was characterised by a strongly decentralised nature. The Arsacid monarchs conferred their royal prerogatives on local political subjects which were strongly rooted in the territory, in order to assure control of the most important districts. In the domains under the Great King's authority, there were thus local dynasties, endowed with an independent political life and administrative organisation. These "client" kings were bound by the oath of allegiance they made to the Parthian king. Nonetheless, their high degree of autonomy allowed them to develop an individual policy concerning both the international situation and the exploitation of the territorial sources and the trade possibilities their lands offered.⁵⁵

The Characenian kingdom, or Mesene, constitutes the better known among these ancient principalities, a "client" monarchy that could date its origins back in time until the last period of Seleucid rule. Its capital and most important city was Spasinou Charax, named after Hyspaosines, a Seleucid governor, self-proclaimed king and founder of the local dynasty.⁵⁶ The same seafaring skills that the Arsacids lacked was the strength of the Characenians, once the Parthians made themselves the new masters of the area. Heir to the Seleucid naval organisation in the Persian Gulf, Hyspaosines had already been able to exert effective control over the sea routes connecting Mesopotamia with the Gulf in the second century BCE, as attested by a Greek inscription from Bahrain.⁵⁷

The Arsacid Great Kings soon understood that such commercial activity could represent a chance for huge income. Thus, instead of directly occupying Characene, the Parthians acknowledged as king of Characene, Apodakos, Hyspaosine's son and successor. He maintained his father's throne as a vassal monarch of the Parthian Great King, with the right to mint his own coins. This is the royal authority the *Periplus* is referring to: a semi-independent kingdom, able to exert a thalassocracy on the Gulf and enjoying significant autonomy, but, nonetheless, perceived of as a direct expression of the Parthian/"Persian" rule by the anonymous author.

A few decades later, according to Gan Ying's report, it seems that the Parthian Great King's control over the country had been enforced. A passage in the *Hou Hanshou* states: "Later on, Anxi (the Arsacid kingdom) conquered, and subjugated Tiaozhi (Characene). They have, in fact, installed a Senior General there to supervise all the small towns."⁵⁸ The Chinese report appears to record a precise political situation. The Arsacids seem to have militarily occupied the kingdom, transforming Characene into a Parthian satrapy and nominating an Army official as responsible for the points of major economic interest: the cities and river harbours. The reasons why the Parthian leadership intervened are not clear. It was probably part of Great King Vologases I's policy aimed at reaffirming his authority over all his vassal monarchs (continued by his son Pacoros II). What seems clear is that this solution was temporary: a few years later in fact the local Royal rule was restored.⁵⁹

The Characenian dynasty was not disposed to renounce its autonomist prerogatives, as shown by the episode relating to Trajan, and narrated by Cassius Dio. For Attambelos VII, king in Characene since 113/14 CE, the authority of the Roman Emperor who soon or later would have come back to his distant capital would be preferable than that of the much closer Arsacids. The latter, in fact, for two centuries had been trying to increase their power by enforcing their influence on the government of the most wealthy and important among their "client" kingdoms, Characene.

Thus Attambelos, hearing that Trajan was approaching Mesene with an army and a fleet, without much ado went to his kingdom's northern borders to greet Trajan and offer him submission. But the failure of the invasion and Trajan's death brought about Attambelos' political ruin and the ruin of the Characene local dynasty as well. The Parthians solved the Characenian problem once and for all by putting a member of the Arsacid dynasty on the throne and bringing to an end the Hyspaosinid line of succession.⁶⁰ The next mention of Characenian royalty occurs fourteen years after Trajan's wars (131 CE) in an inscription mentioning a king named Mithridates, the first king of Characene bearing an Iranic Arsacid name.

This, along with other texts, can be taken into consideration in order to shed light on Mithridates' rule and clarify the nature of the tighter control the Arsacids now exerted on the small kingdom and on its harbours and routes after the local dynasty's demise. The mentioned inscription in Palmyrene Aramaic was found in the agora of the Roman caravan city, well beyond both Characene and Parthian borders:

[This is the image of] Yarhai, son of Nebuzabad, grandson of Šammallath, son of Aqqadam, citizen of Hadriane Palmyra, satrap of the Thilouanoi for the king Meherdates of Spasinou Charax. The merchants of Spasinou Charax in his honour, in the year 442 (131 CE), in the month of Xandios (April).⁶¹

Yarhai, son of Nebuzabad, was a citizen of Palmyra, thus a subject of the Roman Empire. He was certainly a pre-eminent figure within the circle of merchants operating in the Mesenian capital city (Spasinou Charax). The presence of

Palmyrene merchants and the existence of a network of Palmyrene trade colonies in Parthian territory and in the harbours of Characene was well-known since the mid-first century CE and had grown in parallel with the increase in the commercial relevance of the Syrian oasis. What differentiates this text from the other so-called “caravan inscriptions” is the reference to the specific office held by Yahrai in the new king’s administration as governor of the district of Tylos, that is to say the present-day island of Bahrain, long a possession of the Characene kings.

Mithridates came to power after many decades of Mesenian independence and struggle to affirm their political identity. He was imposed by a foreign Great King who had punished the traditional dynasty with suppression for its betrayal. It seems understandable that he tried to establish a new state administration, appointing men who proved themselves essential for the implementation of his policy, like Yarhai, to positions of responsibility. He appointed as governor of Tylos, a district vital to the Persian Gulf’s merchant system, one of the leaders of the Palmyrene merchant community whose interests were closely connected with the perfect functioning of the trade routes. In order to maintain the efficiency of the Gulf routes, and assuring the income provided by the taxation of the goods for the Arsacids, the political responsibility over commercial areas was conferred to those people who could benefit from the efficiency of the merchant organisation more than anyone else: the Palmyrenes.

Another interesting element is provided by Mithridates’ royal titulature as it appears on his independent coinage, attested from 143/4 CE: Meredates, son of Pacoros, King of Kings, king of the Ommanes. This proves that King Mithridates was a member of the Arsacid dynasty, son of the former Great King Pacoros II (80–110 CE) and brother of the Great King Vologases II.⁶²

Vologases had to appoint a dynamic monarch, open to collaboration with foreigners, ready to understand and exploit the region’s potential, and capable of protecting his lord’s interests in a region where the Arsacid authority could be contested. That man had to be particularly loyal to Vologases and the Arsacid house in order that he would not to abuse the wide political autonomy implied in his role of commercial mediator between Rome and Ctesiphon. He had to be able to exploit the proficiency of the Palmyrene merchants in the most convenient way for the Crown, providing them with all the government support they needed to carry on their business in the most effective way. One of his brothers, Mithridates, was chosen and a real synergy was put into action in consideration of the large income which all the trading partners, Palmyra and the Romans, on one side, the Characeni and Vologases II on the other, could generate.

The titulature shows that that Characene and Palmyrene merchants maintained control over the whole Persian Gulf as far as Ommana, identified as we said, by modern scholars with the complex of sites of ed-Dur, Dibba and Mleiha, in today’s United Arab Emirates, close to the Strait of Hormuz at the point where the Gulf route met the Indian Ocean “highway”. A third inscription proves that the key kingdom of Characene had become so tightly connected with the Arsacid royal house that assuring its control was an indispensable factor in order to be able to establish a firm rule over the whole of Parthia. The famous inscription on the

Heracles' statue from Seleucia on the Tigris adds more detailed information about Mithridates' fate:

In the year of the Greeks 462 (151 CE) the King of Kings Arsaces Vologases, son of Mithridates king, led a military expedition into Mesene against Mithridates king, son of previous ruler Pacorus, and after king Mithridates had been expelled from Mesene, became the ruler of all of Mesene and of this bronze statue of the god Heracles, which he himself transported from Mesene, placed in this Sanctuary of the god Apollo who guards the Bronze Door.⁶³

Mithridates, thanks to his trade hegemony over southern Mesopotamia and the Persian Gulf, his trade policy and his allies, had become powerful and influential. He had at his disposal an efficient commercial organisation. This situation became unsustainable when Vologases III took power in Ctesiphon, beginning a new Arsacid Dynasty (148 CE). For Vologases III, Mithridates was a dangerous rival, a loyal servant of his predecessor. He solved this problem by conquering the vassal kingdom. Mithridates was deposed and Orabzes II, loyal to the new Great King, and possibly a relative, was appointed in Mithridates' place (151 CE).⁶⁴

This fact did not undermine the synergy established with the Palmyrenes.⁶⁵ Under the new king, with his support and protection – which meant with the support and protection of the new Parthian Great King – the Palmyrene merchant expeditions continued to cross the Arsacids' territory, traverse the Gulf routes as far as Ommana and beyond, spreading Mesopotamian and western goods as far as India. The Characene authorities enjoyed different levels of autonomy from the central Arsacid power. Various forms of direct and indirect control were adopted by the Arsacids, which always resulted in granting the local authorities the necessary independence to manage the long-distance trade. Characene kings, first alone and later in collaboration with their skilled Palmyrene trading partners, actively took part in the Indian Ocean trade, thanks to the powers granted by the Arsacids and the strong bond with Parthian authorities. In the second century CE, with direct Arsacid control of the kingdom, the Characene trade activity became a Parthian trade activity, and the Palmyrene collaboration with Characene, a collaboration with the Arsacids. This was a synergy that only a major conflict could interrupt.

In 157 CE, only four years before the ferocious Parthian invasion of the Roman province of Syria, the Palmyrenes honoured Marcus Ulpius Yarchai, a Roman citizen and caravan prince of Palmyra for the role played in supporting their Indian Ocean trade through the harbours of Characene, now firmly controlled by the Arsacids, a people once considered only “horse riders from central Asia”.⁶⁶

Notes

1 Vell. Pat. II.101.

2 Suet. *Tib.* 12.2; Cass. Dio, 55.10.18–19; Oros. *Adv. Pag.* 7.3.4; Täubler (1904): 46–49; Ziegler (1964): 53–54; Zetzel (1970): 259–266; Romer (1974): 171–173; Angeli Bertinelli (1979): 52; Schippmann (1980): 48–49; Dąbrowa (1983): 43–44; Campbell

- (1993): 224–225; Greatrex (2007): 151–153; Luther (2010): 103–127; Edwell (2013): 201; Overtoom (2016): 137–156.
- 3 Gregoratti (2015a): 731.
- 4 Partly due to the still fundamental role played by the Classical sources concerning our knowledge of Parthian history and society: for example Debevoise (1938); Verstandig (2001).
- 5 Wiesehöfer (1998).
- 6 Gregoratti (2017a).
- 7 Lerouge (2007).
- 8 On this idea Gregoratti (2012a); Gregoratti (2012b); Gregoratti (2016a).
- 9 Seland (2008); Seland (2013).
- 10 A term with a strong cultural reference – De Jong (2013). Following the parallel investigations and use of the term in Obolensky (1971) concerning Byzantine influence, Fowden (1993) on Arab states, Rapp (2014) who speaks more in general of an “Iranian Commonwealth” of which the Parthian could be part.
- 11 A possible term that can be used along with “empire” to better highlight the differences with the European ancient empire par excellence: the Roman one. Not to be confused with the later Sasanian-Parthian confederacy, Pourshariati (2008).
- 12 Wheeler, Gosh and Deva (1946); Wheeler (1955); Begley (1983); Begley (1993); Begley (1996); Begley (2004); Seland (2014).
- 13 Seland (2011).
- 14 Autiero (2015): 117–118.
- 15 For the site of Berenike, see all excavation reports from 1994 to 2001 and from 2008–09 seasons onwards; Tomber (2000): 624–631; Wendrich et al. (2003); Tomber (2008): 74–75; Sidebotham (2011); Sidebotham and Zych (2012); Krishnan and Ballavally (2015): 256–257. For Myos Hormos see Peacock and Blue (2006); Blue and Peacock (2011). See also Schenk (2015): 168; Autiero (2015): 116–117.
- 16 Casson (1990).
- 17 Casson (1989).
- 18 Raschke (1978): 978–981, nn. 1324–1346; Salles (1993); Salles (1995); Casevitz (1996); Salles (2012).
- 19 On the literary tradition and the cultural milieu which produced the *Periplus* see De Romanis (2016).
- 20 Seland (2008); Seland (2010); Seland (2013).
- 21 Gregoratti (2017a): 95–98; Gregoratti (2017b): 138–141.
- 22 Nodelman (1960); Schuol (2000); Gregoratti (2011); Celentano (2016a).
- 23 *Periplus* 35–36.
- 24 Strab. 16.1.5, 16; Plin. *HN* 6.122; Flav. Joseph. *Ant. Iud.* 18.372–373; App., *Syr.* 57; Amm. Marc. 23.6.23; On the city under Parthian rule see Gregoratti (2012c).
- 25 Perhaps the *Apollonia* of Ammianus Marcellinus (23.6.23); Yon 2016: 127–128.
- 26 Roug   (1987).
- 27 Plin. *HN* 6.140, 145, 148; Arr. *Parth.* frgm. 16; *69 = FGhR, 156, F 47; Strab. 2.1.26; 16.3.2, 4; Ptol. 5.20.5–6; Amm. Marc. 23.6.11; Yon (2016): 128–130; Celentano (2016b): 37–38.
- 28 Plin. *HN* 6.149–152; Potts (1990): 308–309; Salles (1992): 92–94; Schuol (2000): 336–338.
- 29 Haerinck (2003): 199; Jasim and Yousif (2014).
- 30 Salles (1988): 89–91, 95–98; Potts (1990): 302–303.
- 31 Boucharlat and Mouton (1993); Boucharlat and Mouton (1994); Jasim (2001).
- 32 Haerinck (1998); Haerinck (2003); Gregoratti (2011): 216.
- 33 Haerinck (1998): 294–296; Callot (2004): 82–83; Potts (2009): 42; Potts (2010): 69.
- 34 Cass. Dio 68.17, 28; Arr. *Parth.*, frgm., 16; *69–*70; Schuol (2000): 345–346; Gregoratti (2011): 219–220; Gregoratti (2017a): 100–101.
- 35 Cass. Dio 68.29.1.

- 36 Guey (1937): 19–26; Lepper (1948): 158–204.
- 37 Chavannes (1906): 216–245; Chavannes (1907): 177–178; Grosso (1966): 157–161; Choïsnel (2004): 147–149, 152–153; Gregoratti (2012d); Gregoratti (2014): 59–62; Gregoratti (2017b): 131–132.
- 38 Grosso (1966): 166; Posch (1998): 361.
- 39 In later works, the Chinese chroniclers indicate that they are aware of the trade between Rome and Parthia and of the large profits involved: *Jinshu*, cap. 97. 2544; *Sanguozhi*, cap. 30. 860–862; Choïsnel (2004): 153–154; Hackl, Jacobs and Weber (2010): III, 498–500.
- 40 Gregoratti (2012d): 113–114; Gregoratti (2017a): 99–100.
- 41 *Hou Hanshu*, chap. 88. 2918.
- 42 Leslie and Gardiner (1982).
- 43 *Hou Hanshu*, chap. 88. 2919; *Sanguozhi*, 30. 861, where a trade connection between Rome and the Parthian states (Characene) is mentioned; *Hou Hanji*, 15. 127b; Hackl, Jacobs and Weber (2010): III, 501, 506, 509.
- 44 *IP*, 34 = PAT 1584; *Inv.*, X, 7 = IGLSyr. XVII/1, 240; *Inv.*, X, 40 = PAT 1376 = IGLSyr. XVII/1, 241 (81 AD); *Inv.*, X, 127 = PAT 1421 = IGLSyr. XVII/1, 225 (86 AD); IGLSyr. XVII/1, 242 (112 AD); *Inv.*, X, 114 = PAT 1414 IGLSyr. XVII/1, 227; *Inv.*, X, 112 = PAT 1412 = IGLSyr. XVII/1, 246 (140 AD); *Inv.*, IX, 14 = PAT 262 = IGLSyr. XVII/1, 25 (142 AD); *Inv.*, X, 124 = PAT 1419 = IGLSyr. XVII/1, 247 (150 AD); Rostovtzeff 1932; Seyrig 1941, n. 21–22, 252–258; Schlumberger (1961); Teixidor (1984); Gawlikowski (1983); Gawlikowski (1996); Gregoratti (2010): 25–32; Gregoratti (2015c); Gregoratti (2016b): 535–536; Seland (2016).
- 45 “This is the statue of Marcus Ulpianus Yarhai, son of Hairan, grandson of Abgar, friend of the homeland. The merchants coming up from Scythia (the port of Barbarikon, north-east India) in the ship of Honainu, son of Haddudan, grandson of . . . who eagerly assisted and protected them, set this up in his honour in the month of Dystros in the 468th year (157 CE).” *Inv.*, X, 96 = PAT 1403 = IGLSyr., XVII/1, 250 (157 CE); may be a second fragment mentioning Scythia is connected with Iarhai *Inv.*, X, 91 + 95 = PAT 2763 = IGLSyr., XVII/1, 250 (157 CE?); Cantineau (1933): 187–188; Delplace (2003): 158–167; Other references to the same “Caravan Lord” and his family: *Inv.*, X, 81 = PAT 1397 = IGLSyr., XVII/1, 209 (135 CE); PAT 274 = IGLSyr., XVII/1, 313 (155 CE); *Inv.*, X, 111 = PAT 1411 (156 CE); *Inv.*, X, 128 = PAT 1422 = IGLSyr., XVII/1, 202 (157 CE); *Inv.*, X, 87–88 = PAT 306 = IGLSyr., XVII/1, 248 (157 CE); *Inv.*, X, 90 = PAT 1399 = IGLSyr., XVII/1, 249 (157 CE); *Inv.*, X, 77 = PAT 1395 = IGLSyr., XVII/1, 255 (157 CE); *Inv.*, X, 78 = PAT 1396 = IGLSyr., XVII/1, 256 (157/158 CE); *Inv.*, X, 89 = PAT 307; *Inv.*, X, 107 = PAT 1409 = IGLSyr., XVII/1, 251 (159 CE); Yon (1998): 153–160; Yon (2002): 99–102, 111–114, 145–147, 205–206; Gregoratti (2015b): 56–57; Gregoratti (2016b): 535.
- 46 Rutten (2007); Schenk (2007): 65–67.
- 47 Mainly pottery so far. In comparison with Roman findings, the presence of Parthian coins in India and Sri Lanka is incredibly scarce. From southern India, a coin from Elymais and one from the city of Seleucia on the Tigris (Mitchiner (2003): 16–17). Some modern forgeries of Arsacid coins have been reported for Sri Lanka – Walburg (2008): 183–188.
- 48 Tomber (2007): 974, 977–980; Tomber (2008): 152–170; Krishnan and Ballavally (2015): 245.
- 49 Schenk (2007): 62, 70–78; Schenk (2014): 95, 98; Krishnan and Ballavally (2015): 246; Schenk and Weisshaar (2016): 468–471; Mesopotamia: Seleucia on the Tigris, Uruk-Warka, Susa, Larsa and Dura Europos. Persian Gulf: Bahrain Island, Failaka Island, and ed-Dur-Mleiha-Dibba. South Arabia: Qana, Samad and Khor Rori.
- 50 Coningham (1999): 19; Coningham (2002): 102; Coningham (2006): 94, 107; Schenk (2007): 58; Tomber (2007): 981; Krishnan and Ballavally (2015): 243.
- 51 Kennet (2009); Cherian (2011): 139.

- 52 For a description of BI-ware see Hannestad (1983): 14, 78. For finds of this ware at sites in Gujarat see Krishnan and Ballavally (2015): 241–243.
- 53 Salles (1990).
- 54 Bernard (1990): 41–43; Schuol (2000): 298; Gregoratti (2011): 212–213; Gregoratti (2017a): 97–98.
- 55 Gregoratti (2017a).
- 56 Gregoratti (2011): 211–212.
- 57 Kosmin (2013).
- 58 Gregoratti (2012d): 113–114; Gregoratti (2017a): 99–100.
- 59 Gregoratti (2011), 219–220; Gregoratti (2012d): 112–113; Gregoratti (2014): 61; Gregoratti (2017a): 100.
- 60 Bernard (1990): 37; Potter (1991): 281–283; Schuol (2000): 345–348; Gregoratti (2011): 219.
- 61 *Inv. X*, 38; = PAT 1374; Seyrig (1941): n. 21bis, 253–255; Teixidor (1984): 58–59; Gawlikowski (1996): 141; Schuol (2000): 56–57; Gregoratti (2010): 32–33; Gregoratti (2011): 220–223; Celentano (2016b): 38–41.
- 62 Potts (1988): 146–149; Potts (1990): 324–327; Schuol (2000): 352; Gregoratti (2011): 221; Gregoratti (2017a): 100–101.
- 63 Bernard (1990): 23–27; Potter (1991): 277–290; Gregoratti (2011): 223–225; Gregoratti (2013): 280–283; Gregoratti (2016b): 537–538; Gregoratti (2017a): 100–101.
- 64 Nodelman (1960): 114–115; Bernard (1990): 40–41; Schuol (2000): 356–362; Gregoratti (2011): 224.
- 65 See n. 46 and *Inv. X*, 29 = PAT 1373 = IGLSyr., XVII/1, 196 (161 d.C.); Seyrig (1941): n. 24, 263.
- 66 *Inv. X*, 96 = PAT 1403 = IGLSyr., XVII/1, 250; see n. 46.

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4 Ethnographies of sailing

From the Red Sea to the Bay of Bengal in Antiquity

Himanshu Prabha Ray

Introduction

If one happens to fall into the dreadful ocean, the abode of Nagas, marine monsters and demons, he has but to think of Avalokitesvara, and he shall never sink down in the king of waters.

(Saddharmapuṇḍarīka Sūtra, 24, 6)

This was not merely an empty promise of protection from the dangers of shipwreck described in the texts, but the scene was also sculpted prominently in the rock-cut Buddhist caves at Kanheri, on the erstwhile island of Salsette off the west coast of India. Salsette was one of seven islands that were merged as a result of land reclamation projects undertaken by the British colonial government in the nineteenth century to form the present city of Mumbai. Kanheri, with 109 rock-cut caves was the largest Buddhist centre located in the fertile basin of the Ulhas River and dating from first to eleventh century CE. Most of the caves at Kanheri are located in small clusters between 60 and 90 metres above the surrounding plain. The caves are carved into three different hills with a stream flowing between them. Almost every cell contained a *podhi* or cistern where rainwater from the top of the hill was collected and at least ten of the inscriptions record donations of cisterns, tanks and water bodies.¹

Merchants and traders were the major patrons of the monastic site. A six-line inscription in cave 11 dated 12 September 854 CE records the visit of a devout worshipper of the Buddha from Gauda or Bengal on the east coast and a permanent endowment made by him of one hundred drammas or silver coins for the construction of a meditation room and clothing for monks residing at the *mahāvihāra* at Krishnagiri, identified with Kanheri.² Three Pahlavi inscriptions in cave 90 indicate visits of Parsis to the Buddhist site in the eleventh century.³ No doubt merchants and trading groups, both from within the region and outside it were prominent devotees of the Bodhisattva Avalokitesvara. Kanheri's island location and its promise made it an appealing place for travelling groups.

Other important islands on the west coast included Elephanta, Hog (Nhave) and Karanja islands, with the River Amba flowing past Karanja Island. Many of the islands, such as Elephanta, are known for their architectural treasures, rock cut caves, structural temples, and forts which survive to the present. Several of the

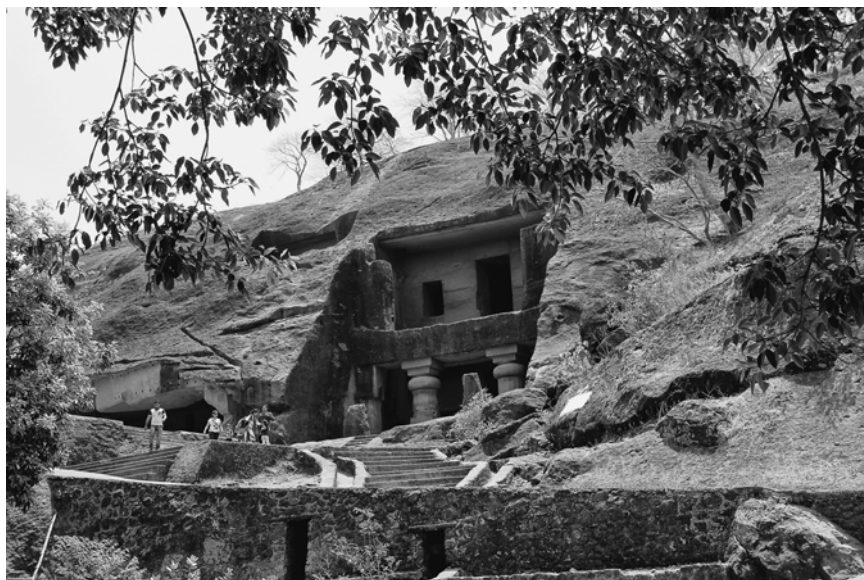


Figure 4.1 Overview of rock-cut caves at Kanheri on the west coast of India in the vicinity of the modern city of Mumbai (photo courtesy of Himanshu Prabha Ray)

rivers flowing past the islands were navigable and provided routes that linked the coast with the Deccan plateau across ghats/passes, such as Thalghat, Nanaghat and Bhorghat. Most of the passes and crossing points are also locations of Buddhist monastic centres dated to the early centuries of the Common Era. How are these early religious sites on islands and along the coasts to be understood?

This chapter shifts the spotlight from existing theories of economic history, which treat it as a linear development from a simple to complex economy with the need to identify a prime mover for the shift from agricultural society to urban cities. Instead, it underscores the concept of ritual economy, where the cultural and religious anchorage provided by early Buddhist monastic centres were vital to the development of both the political and economic structure. Economic developments need to be contextualised within a social structure.⁴ This is an issue that has been dealt with earlier and will not be repeated.⁵ In this chapter, the highlight is on coastal architecture and its interlinkage with travelling groups who moved both across the sea, as well as on routes into the interior. Monumental architecture along the coasts served dual functions; in addition, these were also used as major orientation points by watercraft while approaching land. Several examples may be mentioned, such as the Narsimha temple at Bhemunipatnam on the Andhra coast, and the Konarak temple in Orissa. Perhaps the most relevant example for this chapter is the Buddhist monastery at Nagapattinam, popularly known as the Chinese Pagoda, which was a major landmark on the Tamil coast from the seventh to the nineteenth centuries CE, when it was demolished to build a Jesuit college.⁶

This chapter begins with defining the geography of the west coast of India, described in some detail by the first-century *Periplus Maris Erythraei* (henceforth *Periplus*), before bringing the fishing and sailing communities and coastal centres into the discussion. This is followed by the larger context of the chapter, i.e. the maritime networks in the Indian Ocean, while the concluding section places this study within academic debates relating to 'trade' in early India.⁷

The West Coast: contextualising religious architecture

The Western Coastal Plain, the focus of this chapter, is best described as a narrow strip of land between the Western Ghats to the east and the Arabian Sea to the west. It ranges in width from 50 to 100 kilometres and extends from the present state of Gujarat in the north through Maharashtra, Goa, Karnataka and Kerala. Numerous rivers cut across the region. Mostly originating in the Western Ghats, the rivers are fast-flowing, usually perennial, and empty into estuaries. Traditionally, the Indian coasts have been portrayed as inhospitable regions lacking natural harbours and afflicted with a shallow continental shelf and turbulent swells of waves. Did this deter trade and travel across the Ocean? This chapter answers this question by presenting an overview of vibrant seafaring activity in the period dating from the beginning of the Common Era to the seventh century based on both coastal and long-distance maritime networks.

It is no doubt true that the long coastal fringe offers only a few sites which provide deep water and shelter for modern ships as well as for eighteenth-century sailing ships. But in the period under discussion, ships drawing very little water were used in coastal navigation and were well adapted to these conditions. The practice generally followed was for sailing ships to anchor some distance from the coast and small boats were then used to transport cargo and passengers to the shore. Besides, voyages were made only in good weather and a rudimentary 'shelter' close to the river mouth sufficed as harbour. In the non-sailing period and for repairs, the watercraft was simply dragged ashore.⁸

The starting point for this discussion is Gujarat which is marked by a long coastline from the Gulf of Kachchh to the Gulf of Khambat and characterised by mud flats and saline wastes. As recently as 1970, this coastline contained 46 smaller ports and one large port at Kandla in Kachchh. These coastal settlements participated in trade with other centres further south along the Indian coastline and also across the Ocean, though each port specialised in a particular route. Mandvi, Porbandar and Veraval traded with East Africa, while Porbandar and Veraval traded with South Arabia, South East Asia and the Persian Gulf.⁹ Thus route specialisation is an important aspect of seafaring activity that has far-reaching implications for a study of the past as well.

Another pertinent trend relates to shifts in coastal centres, for example, between the sites of Bharuch, Sopara, Kalyan, Chaul and Surat – all located on the Konkan coast in the present states of Gujarat and Maharashtra. It is important to stress that more than a thousand Buddhist caves were excavated in the hills of the Western Ghats and its offshoots at about fifty centres in the western Deccan. Broadly these

sites are located at passes along overland routes or overlooking creeks and coastal settlements. These shifts were linked both to silting of river mouths where the centres were located, as well as to changes in internal routes linking the coast to the capitals and cities of the interior. It was only with the transformation of the motley collection of seven islands with a variety of landing places into the port of Bombay in the nineteenth century that an identifiable and permanent port city was created on the west coast of India. Until this transformation, several landing places had been in existence in the vicinity of Bombay. It was between 1845 and 1859 that there was a need for the construction of the first docks for the steam-shipping companies as a result of the increasing naval and commercial importance of the site. A description of Bombay is illustrative of this practice:

Originally, sailing ships for the most part remained anchored on the roadstead while goods and passengers were loaded and discharged by means of lighters which used an increasing number of landing places stretching from the Customs Bander in the south-east to Mahim to the north-west. None of these landing places was satisfactory, as they could only be used intermittently during some part of the day while at low tide goods and passengers had to be carried through the mud.¹⁰

The coastal belt of Karnataka extends to about 10 to 20 kilometres inland and is rich in mineral resources such as iron, copper, limestone, mica, gold, garnet, etc. Karnataka, with a coastline of more than 300 kilometres, has nine coastal centres, apart from a major port at Mangalore. Karwar, Belekeri, Tadri, Honnavar, Bhatkal, Hangarkatta, Malpe, Gangolli and Old Mangalore come under the category of minor or intermediate centres. Except for Karwar Port, which is all-weather, all the others are fair-weather harbours. The coastal belt of Kerala extending over 580 kilometres is relatively flat, teeming with paddy fields and coconut groves, and is crisscrossed by a network of interconnected canals and rivers. Thus a very different sailing regime from that functioning at present was in place. This was also reflected in the modest nature of coastal centres when compared to the present metropolises of Mumbai or Goa.

In the period of interest for this chapter, several dynasties are known to have ruled in parts of the west coast and were often in conflict with each other. Their orientation towards the ocean is however unquestionable. Valabhi, located on the Bhavnagar creek, at the head of the Gulf of Cambay, emerged not merely as an outlet for maritime trade, but also as the capital of the ruling dynasty of Maitrakas (493–776 CE) and the core area for religious consolidation. I begin with a brief overview of fishing and sailing communities that were vital partners in maritime networks and then discuss the archaeological data for coastal centres. Maritime trade has conventionally been viewed as trade in luxury items and controlled by the state. This is a model premised on the notion of empires which controlled trade and trading activity, as in the late nineteenth and early twentieth centuries, a model that needs rethinking.¹¹

The fishing and sailing communities

This chapter argues that fishing and sailing communities formed the foundation of maritime activity in the Indian Ocean and provided a continuum to seafaring throughout history, though no doubt their fortunes fluctuated over time. Fishing was the traditional occupation of coastal groups in several pockets of the Indian Ocean and this is an adaptation that dates to at least the fifth millennium BCE in several areas.¹² These communities adopted numerous occupations associated with the sea: fishing and harvesting other marine resources, salt making, sailing, trade, shipbuilding and piracy.

A common feature of the sewn boats of the Indian Ocean was the use of coir-rope for stitching. As coconut palm plantations were restricted to certain parts of the Indian Ocean littoral, coir-rope would have been one of the commodities in demand along the boat-building settlements of the coast. Thus, the building of the *dhow* or traditional watercraft involved trade and transportation of wood for planking and coconut coir for stitching from different regions of the Indian Ocean, thereby creating and sustaining networks of interaction. These maritime communities are to be distinguished from merchants and traders involved in oceanic trade.¹³ Merchants and traders in some cases certainly owned ships and watercraft, but they neither manned nor sailed these. More often, however, goods and cargoes were entrusted to the skipper of the vessel who was then responsible for their sale and profit.

The first century CE *Periplus* perhaps provides the first detailed description of local boats in the Indian Ocean and several types extending from the East African coast to the west coast of India are referred to. The *Periplus* informs us that:

Two runs beyond this island [Menuthias = Zanzibar?] comes the very last port of trade on the coast of Azania, called Rhapta [sewn], a name derived from the aforementioned sewn boats, where there are great quantities of ivory and tortoise shell.¹⁴

In the context of Gujarat, the *Periplus* refers to Syrastrène or Surashtra; Eirinon or the Rann of Kachchh beyond which lies Barake or the Gulf of Kachchh. This is a dangerous gulf to navigate for 'not only are the waves there very big and oppressive, but the sea is choppy and turbid, with eddies and violent whirlpools.'¹⁵ After this the author mentions the Gulf of Barygaza, identified with the Gulf of Khambat.¹⁶

A range of communities participated in maritime activity at this time, such as the Nabataeans, Sabaeans, and Homerite Arabs, in addition to Indians. Does the *Periplus* indicate the ethnic identity of traders who traversed the sea lanes of the western Indian Ocean? Leuke Kome on the Red Sea coast was the harbour of the Nabataeans where craft, 'none large', loaded with freight from Arabia.¹⁷ While discussing Muza or Mocha on the Yemen coast of the Red Sea, the text refers to Arabs – ship-owners or charterers, and sailors – who 'trade across the water and with Barygaza, using their own outfits'.¹⁸ Another important harbour and storehouse at the entrance to the Red Sea was the island of Socotra, which was settled by Arabs

and Indians and even some Greeks, who sailed out of there to trade.¹⁹ Merchants from Barygaza or Bharuch customarily traded with Oman and centres in the Persian Gulf and brought in supplies of copper and logs of teak and ebony. The Malabar Coast owed its prosperity to Greek shipping and also to traffic from Ariake or Gujarat.²⁰ On the east coast, the *Periplus* refers to Poduke, identified with Arikamedu near Pondicherry, where local boats mixed with those that sailed down from the region of the Ganga and from across the Bay of Bengal.

Thus it is evident that diverse local communities participated in seafaring activity, as reflected in references to local watercraft in the *Periplus*. A reading of the *Periplus* also establishes the absence of state control over maritime trade either in the region of the Red Sea or further afield, though it is true that the local polities attempted to extract revenues from the sale of trade commodities at market centres. In secondary writing on the subject, the emphasis has been on trade, often termed 'elite' enterprise conducted by ship-owning merchants, especially in the second millennium CE.²¹ How is the relationship between the *nākhudā* or individual-in-charge of the ship and the merchant to be defined? Recent analytical study of the "India Letters"²² has interrogated this connection. Margeriti in her study of Aden based on the published and unpublished records of the Cairo Geniza has concluded that the terminology used in them is ambiguous and it is not easy to distinguish ship owners from captains and other crewmen.²³ She also draws attention to differences in ownership of shipping craft and the role of State officials in the Mediterranean, as opposed to those in the Indian Ocean. In contrast to practice in the Mediterranean, in the Indian Ocean, while government officials did own ships, the Geniza papers suggest that merchants dominated this business.²⁴ This ambiguity in terminology and the need to distinguish modern practices from those in the Medieval period is further corroborated by a careful reading of the "India Letters", as evident in Friedman's statement:

The ambiguity in terminology in our sources, especially in connection with the *nākhudā*, which certainly was used in more than one sense, and the difficulty in equating medieval terms with modern concepts present a major obstacle in any attempt to define the word with precision. Some *nākhudās* were clearly ship owners; others evidently served as captains or may have filled other functions on the ship.²⁵

The larger issue that this debate raises is the extent to which seafaring activity may be termed 'elite' and discontinuous. Archaeological data from coastal sites provides the much-needed corrective.

Coastal cities

Archaeological investigation in western India has provided information on several long-lasting coastal settlements. For example, the site of Mandvi on the Rukmavati River estuary at the entrance to the Gulf of Kachchh has been known as a town with links to both Oman and the East African coast since archaeological exploration was

conducted in the mid-nineteenth century. Dwarka located on the north coast of Saurashtra is another contemporary site with a long period of settlement from the first century BCE to almost the present. Other continuously settled sites along the Gujarat coast include Porbander and Somnatha and Valabhi at the head of the Gulf of Khambat. While sites such as Valabhi developed into political centres by the middle of the first millennium CE, others like Somnatha and Dwarka were sacred pilgrim centres of great sanctity. At Somnatha, archaeological evidence of historical settlement dates to the fourth century BCE, though religious structures, such as temples emerge only in the fifth–sixth centuries CE. Further south, Chaul, referred to as Campavati or Revatiksetra in the Epics, is mentioned in inscriptions and literary sources from the early centuries of the Common Era to the seventeenth century. In a copper plate record of 1094, three major coastal centres are identified and include in addition to Chaul, Thane and Sopara which were also in western India.²⁶

Three copper plates dated to the reign of the Huna Toramana (fifth–sixth centuries CE) record gifts made to the temple of Jayaswami or Narayana belonging to the queen mother, donated by the trading community of Vadrappalli in Gujarat. The main commodities referred to in the plates are molasses, salt, cotton and grain, and a detailed list of revenues transferred is also enumerated. These revenues were calculated on the basis of vessel load, donkey load and cart load of the produce. Vadrappalli was probably located 8 kilometres to the west of Sanjeli on the west coast of India and signatories to the donation included traders from Ujjain, Kannauj, Mathura and perhaps Mandasor. A goldsmith constructed a lake near the temple.²⁷

Of interest to this discussion is the charter of Visnusena dated to 592 CE, issued from Lohata in the Kathiawar region. This charter is addressed to a list of officials as is usual in records of the Maitraka dynasty (493–776 CE). The charter assures protection to the community of merchants (*vaniggrama*) established in the region and endorses their continued functioning.²⁸ It provides a detailed list of 72 trade regulations or customary laws to be followed. Some of the regulations are of great interest to this discussion. For example, it is specified that merchants staying away for a year were not required to pay an entrance fee on their return. Other clauses specify duties that were to be paid. A boat full of containers (*bhanda-bhrta-vahitrasya*) was charged 12 silver coins, but if the containers were for religious purposes, they were charged only 1¼ silver coin. In the case of a boat carrying paddy, it was half this amount. Other items, which were frequently transported by boat included dried ginger sticks, bamboo, wine, leather, buffaloes, camels and bulls. The variety of taxable objects mentioned in the inscription is an indication of the diverse nature of trade in the region. These included oil mills, sugarcane fields, wine, cumin seed, black mustard and coriander. The inscription also refers to a tax on dyers of cloth, weavers, shoemakers and retailers hawking goods on foot. Others such as blacksmiths, carpenters, barbers, potters, etc. could be recruited for forced labour under the supervision of officers.

A site that has gained prominence in recent years is that of Pattanam in Ernakulam district of Kerala. The Kerala Council for Historical Research has excavated at Pattanam since 2007. Along with locally produced pottery and beads, finds include

building structures, a wharf, a log boat, imported Mediterranean glass, Terra Sigillata pottery, and a range of amphorae dating to the first century BCE through the second century CE. Specimens of Sassanian-period (CE 224–651) torpedo jars from Mesopotamia, late Roman (fifth–seventh centuries) Aila/Aqaba amphorae, glazed Partho-Sassanian pottery, and sherds of probable South Arabian origin also are reported, thus locating Pattanam within the larger world of maritime networks in the western Indian Ocean.²⁹

Arikamedu south of Pondicherry on the south-east coast of India is perhaps one of the few historical sites that have been subjected to several seasons of archaeological excavations. Initially excavated for six seasons between 1941 and 1950, the site was excavated again between 1989 and 1992 by a joint University of Pennsylvania and Madras University team. It is significant that in the Tamil coastal plains, Arikamedu was the largest Iron Age site, with an expanse of 8.4 hectares and an estimated population of at least 1,600. The earliest occupation at Arikamedu was described as a fishing village by Casal after his excavations, and fishing continues to be a major occupation in the region.³⁰ The settlement at Arikamedu grew along the river bank and the impetus for its growth was provided by trade rather than its association with the political elite, with fish being one of the traded items, along with pepper and paddy.

The archaeological record has confirmed that Arikamedu occupied a nodal position in the inland, coastal and trans-oceanic networks from the third–second centuries BCE onwards. We have elsewhere referred to the inscribed shards from Arikamedu, but also important are a range of imported ceramics that have been discovered at the site, further corroborating its long-distance linkages. Construction at the site was in kiln-fired brick with evidence for use of terracotta tiles, but generally was of poor quality and on unstable foundations. The period from the third to seventh century CE is indicated by architectural remnants such as a brick wall and innovations in ceramics, such as the red Rouletted Ware with parallels with sites in Andhra and further south along the Tamil coast.³¹

By the sixth century CE, Bengal is described as a region bordering the eastern sea (*prāksamudra*) in the Faridpur copper plates of Dharmaditya and by the eighth century CE, Dharmapala Deva announces his control of the oceans ‘forming the encircling ditches of the earth’. The Khalimpur charters of the king were issued from Pataliputra ‘where a variety of boats had formed a bridge on the Bhagirathi’. By the tenth century CE, the Bay of Bengal had acquired a territorial identity as indicated by the use of the term ‘Vangasagara’ in the Madanpur copper plate charter of Srichandra. From this varied imagery, it is evident that the waters formed a part of the cultural landscape of the communities in Bengal from at least the fourth–fifth centuries CE, if not earlier, and there was a vibrant transportation network along the rivers and the sea. I should also draw attention to the overlapping frontiers between Bengal and the kingdom of Arakan lying on its eastern edge, which saw cultural and religious interaction between Arakan and Bengal on the one hand, and Burma and mainland South East Asia on the other.

A coastal city that is vital to this discussion is that of Tissamaharama on the south coast of Sri Lanka. It was established on high ground on the left bank of the Kandara

(Kirindi Oya river) connecting it to the ancient harbour site and fishing village of Godawaya at the mouth of the river Walawe Ganga. The Buddhist shrine at Tissamaharama is especially revered as it is one of the sixteen places that the Buddha is said to have visited on the island, as stated in the fourth-century Sri Lankan Chronicle, the *Mahavamsa*. The Archaeological Department of Sri Lanka and the German Archaeological Institute have explored the ancient kingdom of Ruhuna in the south-east of the island since 1992. The oldest settlement on the citadel mound at Tissamaharama dates to the fifth century BCE, and has been identified as a village with small wooden structures. This expanded and grew and was also fortified. Several new structures were added including the tank Tissawewa, which was the main source of fresh water for the community of Tissamaharama. A third-century BCE pot shard from the site bore the graffito of a single-masted sailing ship. In addition, the excavations have yielded a large number of items imported from South Asia, thereby confirming the commercial nature of the site that prospered from the third century BCE to the fifth century CE. An important structure that was unearthed has been identified as that of a hospital. Though there is evidence for the abandonment of the citadel around 500 CE, settlement continued and monasteries flourished.³²

A careful analysis of the pottery showed that in addition to the bulk of local pottery produced for household purposes, two groups of 'imported' wares were also represented: one found extensively in India, viz. Rouletted Ware and Red Polished Ware; while the second comprised of amphorae from the Red Sea and the Mediterranean. The Rouletted Ware is said to have a Ganga valley origin, and has been found all along the east coast of India from Tamluk in Bengal to Sri Lanka, as well as along the rivers that linked the coast to centre further inland. It is significant that Rouletted Ware pottery has been found at several sites in Thailand, Indonesia and Vietnam, and also westward to the Red Sea coast. There are several examples of Rouletted Ware mended with riveting at Tissamaharama indicating its significance at the site. In addition, there are parallels at sites such as Khor Rori (Sumhuram) in Oman.³³

A further dimension was added to the dynamic maritime network as indicated by the distribution of pottery and its close connection to the Buddhist Sangha at the site by the discovery of the earliest shipwreck site in the subcontinent at Godawaya, dated from the second century BCE to the first century CE. The shipwreck has been excavated since 2012. An inscription from the monastic site refers to the collection of duties at the harbour and its transfer to the Sangha.³⁴ Fieldwork has revealed that, along with a variety of ceramics, stone querns and grinding stones, the ship was transporting a cargo of raw materials including glass ingots and iron ingots.³⁵ Other finds included grinding stones and four-legged querns, one of them with a short Brahmi inscription. It has been suggested that these querns may have been used for grinding medicines required at the hospital. Clearly, the results from archaeological work at Tissamaharama have provided insights into the participation of coastal centres in Sri Lanka in maritime networks as early as the fifth century BCE, as well as the development of urban centres in close proximity to monastic establishments.

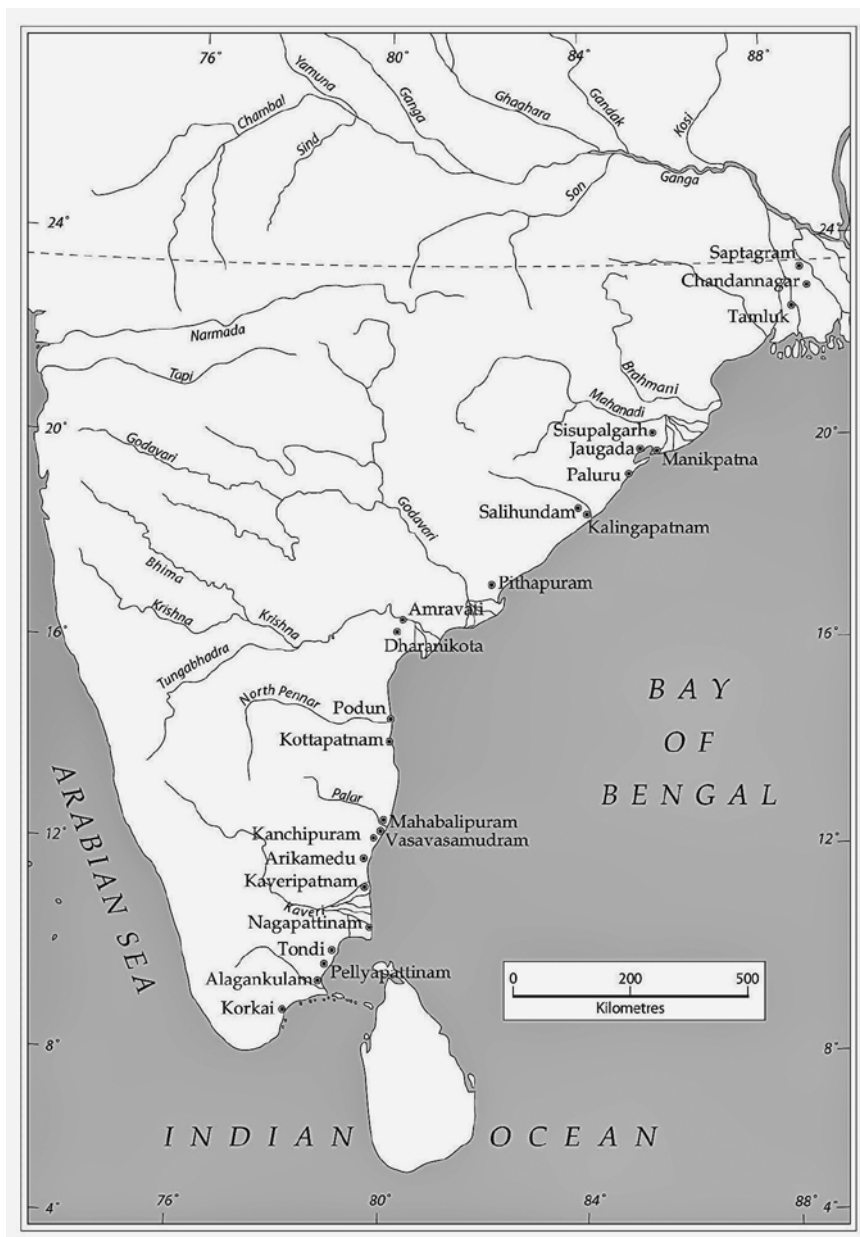


Figure 4.2 Map showing distribution of Rouletted Ware sites in India (courtesy of Himanshu Prahba Ray; drawn by Uma Bhattacharya)

This brief overview of the coastal centres raises the issue of who were the travellers that sustained these networks.

The travellers

While archaeology provides evidence for settlements, traded commodities and the watercraft used in maritime travel, literary sources add to that perspective by underscoring ethical and moral values that underwrote economic transactions in society. This is especially valid for tales used to propagate Christian, Buddhist and Jain values. The Nestorian Church became an important institution not only in Alexandria in Egypt, but more significantly in the Persian Gulf region by the fifth century CE. There is evidence for the reorganisation of the Nestorian Church in the region after the seventh century and growth and expansion at sites such as on the island of Failaka in Kuwait, Sir Bani Yas in the UAE and Kharg Island in Iran. The Church continued to maintain its presence until the end of the ninth century.

Kosmas Indicopleustes ('India-voyager') a Greek sailor from Alexandria who travelled to Ethiopia, India and Sri Lanka in the early sixth century provides a good example of interconnectedness of the Indian Ocean. In later life, he became a monk, probably of Nestorian tendencies. Kosmas tells us that he was a native of Egypt, probably of Alexandria, and never received a complete education (II, 1). He was a merchant (II, 54, 56) in early life, perhaps importing spices and made many voyages. He knew Palestine and the area around Mt Sinai (V, 8, 14, 51–52), had been to Socotra (III, 65), and had navigated in the Mediterranean, Red Sea and Persian Gulf (II, 29). He had rounded Cape Gardafui and sailed off Somalia (II, 30). Kosmas even mentions in book 2 another merchant, Menas, a friend of his, who also became a monk. His book, the *Christian Topography*, is dated to 550 CE. The surviving manuscripts of the text include an uncial manuscript of the ninth century, written in Constantinople (Rome: Vaticanus Graecus 699 (V); and No. 1186 of the Greek Manuscript of the Monastery of St Catherine at Sinai (S) dated to the eleventh century.³⁶

The *Divyāvadāna* is a collection of 38 Buddhist biographical stories. The earliest *Avadānas* are verse narratives attributed to individual monks and nuns, though the *Divyāvadāna* may have been compiled as late as the eighth century. It portrays the adventures of wealthy merchants who later became Buddhist monks.³⁷ The second chapter in the *Divyāvadāna* narrates the story of *Pūrṇa* and celebrates both his business acumen as well as his wisdom when dealing with his recalcitrant brothers. This story reached wider audiences through paintings in the rock-cut caves at Ajanta near Aurangabad. It was also repeated in several Indian Buddhist traditions and translated into other languages, such as Chinese in 700 CE and into Tibetan in the ninth century.

A second text should also be mentioned at this stage, as it shifts the focus somewhat from the city and land to the sea. The *Daśakumāracaritam* or *What Ten Young Men Did* is described as a coming-of-age novel by Dandin (690–725 CE), which presents in autobiographical format stories and adventures of ten princes at the time of their reunion. It describes Valabhi as a prosperous centre. One of the

stories in the text is set in the city (*nagari*) of Valabhi in Saurashtra where the chief of the sea-traders (*nāvika-pati*) lived. He possessed immense wealth like the Hindu god and Lord of Wealth Kubera.

Dandin came from an illustrious family and his great-grandfather had migrated south from the court of the Vakatakas in Vidarbha in central India to take up the position of court poet of the Pallava rulers in seventh-century Tamilnadu. Travel and *digvijaya*, or conquests of the four directions, are strong leitmotifs of the stories and seem to reflect some of the author's own adventures as he wandered from kingdom to kingdom until he reached the Pallava court at Kanchipuram. Scholars have noticed some degree of inter-textuality and casual borrowings from the Jātakas and Guṇādhyā's *Brhatkathā*.³⁸ What is significant for this discussion is the vibrant description of life on land and sea, of trading caravans and merchants in Saurashtra, Dama-lipta and Kanchi, and several localities are used as the settings for the stories, such as Bhavnagar, Surat, Mathura and Ujjain. Merchants travelled over long distances, not only for trade, but also for choosing a bride, as in the case of Balabhadra who travelled with his wife and slave-woman (*panya-dāsī*) and settled in a hamlet, where Balabhadra used his business acumen to multiply his modest capital into a great fortune. When the servant-woman lodged a false complaint against him, he was brought to trial before the merchant *śrenī* or association.³⁹

In the tale of Mitragupta, an unworthy prince is incapable of preventing his sister's lover from claiming the kingdom, though only after several adventures and fights. In one of them, he has him thrown in the sea:

Adrift, my arms spun me this way and that before I could clasp to my chest a plank, destiny's gift. I floated until a whole day and night had slipped away. As the next dawn broke I spotted a vessel with yavanas [foreigners] on board. They pulled me up out of water and informed their captain (*nāvika-nāyaka*) Rameshu.⁴⁰

It is suggested that Dandin drew on historic events in order to construct an elaborate analogy as a means of cautioning the young Pallava ruler against complacency. His objective was a political commentary on winning and saving the kingdom, but in the process, the author does refer to battles at sea and presents insights into a thriving business milieu.⁴¹ To what extent are these narratives suggestive or reflective of a dynamic maritime network? This is an issue that I discuss in the next section.

The maritime network

The first point that needs to be addressed relates to the conceptualisation of maritime space. Two names are used for the Indian subcontinent in early sources: the fourth-century BCE minor rock edicts of Aśoka at Brahmagiri refer to Jambudvīpa or 'island of the rose-apple tree' and the same term occurs in the *Mahābhārata*;⁴² and *Bhāratam varṣam*⁴³ or *Bhāradhava*, which occurs in the Hathigumpha inscription.

These terms were also accepted in Dravidian languages as loan words, e.g., *Manimekalai* 25, 12 (*navalantivu*) and *Cilappatikaram* 25, 173 (*navalantanpolil*), while the Persians referred to the north-west as Hindu corresponding to the Sanskrit Sindhu or river.⁴⁴

By the second–first century BCE, royal inscriptions initiate the practice of defining the land under control of the king. Thus the record of Balasiri, mother of Gotamiputa Siri Sātakani, while recording the gift of a cave to the Buddhist Sangha, also contains a eulogy of her son Gautamīputa whose honorific titles indicate his sovereignty over a vast territory stretching to the shores of three oceans. This territory description is a practice that continues into later periods. Thus, while describing the history of the early Calukyas, the seventh-century inscription refers to Mangalīśa, whose army was powerful enough to invade all islands, crossed the ocean by bridges of boats and effected the plundering of the island of Revati.⁴⁵ Or the following verse in praise of the eleventh-century Western Calukyan ruler Tribhuvanamalla:

May the king Tribhuvanamalla, by the ocean (*jalanidhi*) of whose spotless fame the world is encircled, render subject to his control the bride, which is the earth girt about as if by a zone, with the ocean, which is marked with sea-monsters, both male and female resembling elephants.⁴⁶

Another region that presents a profusion of visual imagery involving the waters is Bengal. By the sixth century, it is described in the Faridpur copper plates of Dharmaditya as a region bordering the eastern sea (*prāksamudra*) and by the eighth century, Dharmapala Deva announces his control of the oceans ‘forming the encircling ditches of the earth’. By the tenth century CE, the Bay of Bengal had acquired a territorial identity as indicated by the use of the term ‘Vangasagara’ in the Madanpur copper plate charter of Srichandra.⁴⁷ Clearly then the notion of sovereignty involved control over the waters of the oceans as well as land, and this is well represented in the royal inscriptions.

These linkages are nowhere more evident than in the case of the Indian Ocean and we focus here on the expansion of Buddhism across the Bay of Bengal. A cluster of fifth-century inscriptions of unequivocal Buddhist affiliation was found in Kedah on the west coast of the Malay Peninsula. This includes engravings of the Buddhist formula of dependent origination on stone – a feature that does not occur among contemporary records from the Indian subcontinent, though the formula is found on terracotta sealings. Three of these inscriptions are made of local stone and bear similar illustrations of Buddhist stupas. Texts very similar to these inscriptions have been found on the island of Borneo and on the coast of Brunei.⁴⁸ The most interesting of these inscriptions in Sanskrit is that of Buddhagupta, which refers to the setting-up of the stone by the mariner Buddhagupta, resident of Raktamrttika, identified with Rajbadidanga in Bengal, on the successful completion of his voyage.

There was a shift in maritime networks around the middle of the first millennium CE and pilgrims visiting sites associated with the life of the Buddha formed a major



Figure 4.3 Stelae with inscription of the mariner Buddhagupta found in Kedah, Malaysia, now in the Indian Museum, Kolkata (photo courtesy of Himanshu Prahba Ray)

category of travellers. No doubt Buddhist monks and nuns formed an important category of travellers. The image of early Buddhist monks and nuns as professional salvation seekers who distanced themselves from the world is being increasingly questioned, especially with regard to their role in innovation and social change.⁴⁹ The active role of the Buddhist clergy in the propagation of certain texts is also being increasingly emphasised. For example, the *Gaṇḍavyūha* enjoyed great prestige and popularity among the Buddhist communities of Indonesia, China and Japan. The Chinese obtained the text from Khotan and propagated it in at least three different versions all over the Far East. In the third and last translation, the *Gaṇḍavyūha* occurs as an individual text and not as a part of the *Avatamsakasūtra*. The preservation and propagation of the *Gaṇḍavyūha* text in Indonesia may perhaps be discussed from a different perspective, i.e. its study and dissemination in the monastic establishments. More importantly, its prominent sculptural representation at Borobudur in central Java highlights the significance of religious travel in early Javanese society.⁵⁰

Another network that needs to be taken into account is that with China. As recorded in the written history of the Han (*Qian Hanshu*) under the reign of Emperor Wudi (140–87 BCE), the emperor sent a mission to the kingdom of Huangzhi, which contemporary writers generally agree was located on the shores of the Indian Ocean, very likely in India.⁵¹ More often quoted are records left by Chinese pilgrims who travelled to India and visited Buddhist sites. The pilgrim Faxian arrived overland in India in 399 CE and returned by sea to China in 413–414 CE from Sri Lanka heading towards the north-west tip of Sumatra. The ship was wrecked on the way and perhaps landed in the Andaman Islands. The next phase took Faxian to the north-west of Borneo where he arrived in 414 after ninety days at sea. The pilgrim remained in Borneo for five months and then left for China in mid-414 heading towards Canton.

A second Chinese pilgrim to visit India in the seventh century CE was Xuanzang, though he travelled by the overland route. In addition to the land routes into the subcontinent, there is ample evidence for the presence of sea routes across the Bay of Bengal. The most interesting information about circum-peninsular navigation of the Malay Peninsula is contained in Yijing's accounts of the voyage of the Chinese pilgrims who travelled to India and returned during the second half of the seventh century CE. Yijing provides an account of his journey from Canton in October–November with the north-east monsoon and his arrival in Palembang on Sumatra a month later. He stayed there for six months, and then went to Jambi near Palembang sometime around May. He stayed there for another two months and then re-embarked in order to profit from the south-west monsoon's winds to reach Kedah (Jiecha) on the west coast of the Malay Peninsula. He did not leave this region for India until the beginning of the following year when the north-east monsoon was well established. He reached the Nicobar Islands in ten days and fifteen days later arrived at Tamralipti in Bengal. This was clearly the most direct route to the holy places of historic Buddhism.⁵²

Twelve years later, Yijing returned by the same route travelling on the winds of the north-east monsoon to reach Kedah, but this trip required two months, when

the outward journey had taken only 25 days. Sailing against the winds was a well-tried technique, but took much longer than sailing with the winds. One of the voyages recounted by Yijing lasted only the time of one monsoon – the pilgrim Wujing left China ‘in the period of the east winds’, i.e. in October–November and arrived in Srivijaya at the end of a month. After stopping at Jambi, he took another month reaching Jiecha and from there he left for Negapatam on the Tamil coast with the same winds before they began to wane towards the end of March. As late as the seventeenth century, the ships of the French diplomatic missions to Siam still had the same concern: they must not miss the ‘season’ as it took seven months on an average to sail from Brest and reach the Chao Phraya estuary.⁵³ How are these accounts to be contextualised within the framework of history writing in India?

Historiography

Traditionally, three broad trends have influenced historical studies on ancient India in the post-Independence period: one is the Marxist school, which supports the Indian Feudalism theory.⁵⁴ The paradigm opposing the theory of Indian Feudalism emphasises the centrality of the political structure in initiating change and suggests three discontinuous phases of urbanisation around which other economic activities coalesced. These phases have been defined as the Harappan (third–second millennium BCE), Early Historic (600 BCE to third–fourth centuries CE) and Early Medieval (sixth–seventh to twelfth–thirteenth centuries CE) periods.⁵⁵ While urban centres were characterised as centres of political power, surrounded by large agricultural hinterlands and located along trade routes in the Early Historic period, the character of these urban centres changed in the Early Medieval period into ‘nodal points in local exchange networks’, which were rooted in a regional context.⁵⁶ Three major historical processes have been postulated for the Early Medieval period within this framework: expansion of state society, assimilation and acculturation of tribal peoples, and integration of local religious cults and practices.

A third model for understanding the development of trade is evident in the writings by André Wink. He argues against the decline of Roman trade, since Greek-Byzantine traders again became active in the India trade from the fourth to sixth centuries CE.⁵⁷ In the fifth and sixth centuries CE, Persian commerce synchronised with the ascendancy of the Sasanian Empire, and with the coming of Islam there was an increase in trading networks in the Indian Ocean. Wink suggests that control of trade was a motivating factor in Arab conquest of Makran, Sindh, Kathiawar and Kachchh. The tenth century CE is marked by Arab and Persian settlements along the Indian Ocean littoral and the emergence of an integrated Muslim trading empire. Furthermore, according to Wink, Buddhism largely disappeared from India, in the Early Medieval period, though it continued to flourish in Gujarat until the ninth century CE. Finally, due to restrictions stipulated in the Law Books or the *Dharmaśāstras* on maritime travel, the Hindu population turned to ‘agrarian pursuits and production, away from trade and maritime transport’.⁵⁸

A few common points emerge from the prevailing secondary writings on early Indian history: first, that trade is closely linked to agricultural expansion and contraction; and second, that the impetus for oceanic trade is invariably placed with the foreigner or outsider – initially the Roman Empire and then Arab traders. New research over the last few decades, however, does not support this perspective.⁵⁹ As archaeology improves its methods and techniques of analysis, it becomes apparent that fishing and sailing communities formed the backbone of maritime travel. The presence of these communities along the Indian west coast dates to at least 5000 BCE. These communities adopted numerous occupations associated with the sea, such as fishing and harvesting other marine resources, salt making, sailing, trade, shipbuilding and piracy.⁶⁰ The commodities involved in trade ranged from salt and cowries at one end of the scale to costly textiles, silverware and dancing girls, at the other.

The conception of a merchant class separate from production is increasingly doubtful – as often merchants were landowners, mine owners and organisers of manufacturing, as well as owners of cargo vessels. Maritime activity involved diverse groups, from the owners of watercraft to those who commanded these, and still others who sailed them. Hence there can be no simple caste attributions of the communities involved in trading activity. Moreover, the normative rules laid down in the Law Books or *Dharmaśāstras* need to be balanced against narrative literature in Sanskrit, which provides glowing accounts of maritime travel, by merchants, craftspeople, musicians and others.

There is little evidence of state-sponsored trade, though rulers were constantly devising means for taxing and controlling the lucrative business. Trade involved a complex hierarchy of transactions, such as gifts to those in authority, barter and monetary exchanges at the local and regional level. Only commodities required by powerful groups were controlled. It is significant that while archaeological data and distribution networks of ceramics indicate local, regional and oceanic interaction, starting from the third–second millennium BCE onwards, inscriptions are largely silent about trading activities until well into the fifth and sixth centuries CE, when trade becomes profitable enough to be taxed. From this period onwards, inscriptions reflect an increasing complexity in the commodities traded and in the nature of transactions conducted.⁶¹ The post-tenth-century period marks a further change, with shops and markets in the vicinity of temples contributing materials to the performance of rituals and festivities. For example, the thirteenth-century record, inscribed on a long slab of polished black stone from one of the temples at Somnath on the Gujarat coast, refers to the purchase of shops by the benefactor and their donation to the temple.⁶²

Conclusion

In the final analysis, the Indian Ocean maritime network in the early centuries of the Common Era involved a variety of groups including artisans, craftspeople and transporters, rather than ruptures and discontinuities, occasionally revived by external stimulus. The history of these communities is evident from the donations

that they made to religious establishments. Thus trade and trading activity cannot be studied in isolation from the diverse religious landscape that developed in the subcontinent. This chapter has attempted to highlight the location and archaeology of religious structures, thereby placing the shrine in its wider social base. It also needs to be appreciated that the religious architecture was by no means unique; instead it was part of a diverse sacred geography. For a comprehensive appraisal of



Figure 4.4 Map showing distribution of Buddhist sites in India, especially along the coasts (courtesy of Himanshu Prahba Ray; drawn by Uma Bhattacharya)

crafts and communities in the subcontinent, the intertwined strands of religious architecture, economic activity, and political intervention need to be examined and understood. An overview of this activity, as presented here, amply demonstrates the participation of maritime communities in a variety of networks – local, regional, and trans-oceanic.

Notes

- 1 Ray (2018).
- 2 Gokhale (1991): 70–71.
- 3 Gokhale (1991): 142.
- 4 Ghosh (1973).
- 5 Ray (1986).
- 6 Ray (2015).
- 7 Ray (2011).
- 8 Deloche (1983): 439.
- 9 Orton (2001).
- 10 Broeze (1992): 254.
- 11 Ray (2007).
- 12 Ray (2003): chapter II.
- 13 Ray and Salles (1996).
- 14 Casson (1989); *Periplus* 16.
- 15 *Periplus* 40.
- 16 *Periplus* 41.
- 17 *Periplus* 19.
- 18 *Periplus* 21.
- 19 *Periplus* 30.
- 20 *Periplus* 54.
- 21 Compare for example the statement: ‘Possessing considerable wealth, these ship-owning merchants can be considered as elites in the ports of coastal western India and were also known for their patronage to religious and cultural activities.’ Chakravarti (2000): 38. The *nakhudas* in this paper are considered ship-owning merchants.
- 22 Goitein and Friedman (2008).
- 23 Margariti (2007): 223–224.
- 24 Margariti (2007): 21–22.
- 25 Goitein and Friedman (2008): 138.
- 26 Mishra and Ray (2017).
- 27 Ray (2007): 39–61.
- 28 Sircar (1953–54): no. 30, 163–181.
- 29 Shajan et al. (2004): 351–359; Cherian (2011).
- 30 Casal (1956).
- 31 Ray (2003).
- 32 Schenk and Weisshaar (2016): 459–479.
- 33 Schenk (2006).
- 34 Falk (2001).
- 35 Carlson and Trethewey (2013).
- 36 McCrindle (1897).
- 37 Tatelman (2005).
- 38 Onians (2005).
- 39 Kosambi (1959): 292.
- 40 Onians (2005): 412–413.
- 41 DiCaroli (1995): 671–678.

- 42 *Mahābhārata* VI 12,1; VI 8,19.
- 43 *Mahābhārata* VI 10,8; *Vāyu Purāṇa* 45,75; *Viṣṇu Purāṇa* II 3,1.
- 44 Scharfe (1989): 14.
- 45 Fleet (1879): 13.
- 46 Fleet (1879): 11.
- 47 Sircar (1949): 337–339.
- 48 Christie (1995): 256.
- 49 Schopen (1988–89): 153–168.
- 50 Ray (2001): 110–127.
- 51 Wheatley (1973, first published 1961): 8–13.
- 52 Jacq-Hergoualc’h (2002): 53–54.
- 53 Jacq-Hergoualc’h (2002): 55.
- 54 This credits the introduction of iron around 1000 BCE with expansion of agriculture and production of a “surplus” in the middle Ganga valley. This surplus was then invested in trading ventures, which emerged around the middle of the first millennium BCE. Trade with the Roman Empire led to the development of urban centres in the early centuries of the Common Era, but with the decline of the Roman Empire and consequently its trade with India, these towns and cities were abandoned. A period of agrarian expansion and self-sufficient village economy followed, lasting until 1000 CE when foreign trade revived under the Arabs. Sharma (1965).
- 55 Chattopadhyaya (1994): 167. The period between the sixth–seventh and twelfth–thirteenth centuries CE showed developments vastly different from the society of the earlier period: ‘State formation was a crucial agent of change in this respect, in the sense that it brought a measure of cohesion among local elements of culture by providing them a focus’ (p.35).
- 56 Chattopadhyaya (1994): 181.
- 57 Wink (1990): 45–64.
- 58 Wink (1990): 72.
- 59 Ray (2011): 27–54.
- 60 McPherson (2007): 34–49.
- 61 Jain (1990): 56.
- 62 Bühler (1892).

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5 Patchworking the west coast of India

Notes on the *Periplus of the Erythraean Sea*

Federico De Romanis

The recently published volume *La fabrique de l'Océan Indien. Cartes d'Orient et d'Occident (Antiquité–XVI siècle)*, under the direction of Emmanuelle Vagnon and Éric Vallet, is something to celebrate by every scholar interested in the history of the Indian Ocean. Among the many Medieval and Early Modern maps of the Indian Ocean magnificently reproduced and commented upon, one is of special interest for the modern reception of a key-text for the history of the Indian Ocean in Antiquity such as the *Periplus of the Erythraean Sea* (henceforth *Periplus*). It is a map that Abraham Ortelius included in a *Parergon* attached to the 1598 (and



Figure 5.1 Abraham Ortelius, *Theatrum Orbis Terrarum*, map of the Indian Ocean (image from the National Library of Wales)

subsequent) edition(s) of his *Theatrum Orbis Terrarum*.¹ The label in the upper page outside the map announces: ERYTHRAEI SIVE RVBRI MARIS PERIPLVS. OLIM AB ARRIANO DESCRIPTVS NVNC VERO AB ABRAH. ORTELIO EX EODEM DELINEATVS. A rather long caption overlaid on the eastern part of the Asiatic continent reports that Bap. Ramusio argued that the author of the *Periplus of the Erythraean Sea* had to be distinguished from the historian of Alexander, and gives further reasons not to identify the two writers.²

The information displayed on the label – that the map is drawn based on the *Periplus*' text (*ex eodem delineatus*) – is somewhat deceptive. As Didier Marcotte correctly points out, what Ortelius actually did was borrow from the most recent European maps the form of the Indian Ocean and then add, where it seemed appropriate, the toponyms, choronyms and hydronyms mentioned in the ancient text. This procedure is a perfect example of the Early Modern reconsideration of the ancient traditions about India on the light of information provided by the contemporary geographic discoveries: a maritime space that had been more familiar to the ancient Mediterranean world than it was later to Medieval Europe revealed itself again and clarified an extraordinary ancient Greek text, which in quite timely fashion had seen its first printed edition in 1533 and in 1550 its first translation in a modern European language.³

Neither of the only two manuscripts that have come down to us with the text of the *Periplus* – the Heidelberg codex Palatinus Graecus 398 and its copy, the Brit. Mus. Add. Ms. 19319 ex Vatopedinus 655 – have a map attached, and although the author of the *Periplus* is acquainted with the process of translating on a map the spatial distances that have been hodologically experienced, we have no reason to postulate that the ancient exemplars of the text included a map.⁴ If they did, we would have found out that the map of India drawn by the author of the *Periplus* would have been closer to the mid-sixteenth-century maps used by Ortelius than that of Ptolemy, as Ramusio pointed out.⁵ In this chapter, I would like to discuss the location of the islands mentioned, in *Periplus* 53, between the emporia beyond Kalliena and the emporia of Limyrike. What seems to be a minor question of historical geography will prove to be crucial to ascertain how the author of the *Periplus* put together the description of the West Coast of India.

As long and varied as it may have been, the professional activity of the author of the *Periplus* cannot explain his largely successful attempt to record a thorough description of the Indian Ocean coastlines. Despite claims to the contrary, the text available to us was not assembled by a sea captain who himself had systematically sailed every route in such a vast maritime space.⁶ Rather, it was the product of a man who, while certainly an experienced seafarer of the *Erythra Thalassa*, combined his experiences with those from other members of the large and diverse mercantile community that was based in Alexandria and active from East Africa to South India and beyond.⁷ The multiple sources of information he could rely on encouraged a project – that of a linear description of the coastlines of the *Erythra Thalassa* – whose ambition can be gauged in comparison with Pliny's chapter on Indian Ocean navigations.⁸

In the sixth book of his *Natural History*, after describing the Indian subcontinent and before dealing with Carmania, Persis and Arabia, Pliny attempts a short history of Indian Ocean seafaring. Pliny's account is composed of information derived from the voyage of Alexander's fleet pieced together with subsequent information about three commercial sea routes, which, he contends, would have succeeded one another from Alexander's time to his own. The three commercial routes have different Indian destinations (Patale, Sigerum, Muziris/Bakare), but Pliny makes no attempt to detail the spatial relations between the three ports, much less to outline the shape of the west coast of India. If we had to rely on Pliny alone, we would not have the foggiest idea about where exactly, along the west coast of India, Muziris would be. The author of the *Periplus* succeeded in integrating the information on the different sea-routes to India and putting together a comprehensive overview of the subcontinent's western coast. How did he do it? How consistent was his achievement?

A reading of chapters 38–58 shows that India's west coast is not evenly described by the author of the *Periplus*. The text alternates segments in which the descriptions are very detailed, with relevant nautical information and bare lists of place names. Even leaving aside any other information not strictly related to the account of the coast, the best-reported sections are those in the vicinities of Barbarikon, the emporion of Minnagar (the metropolis of Skythia), Barygaza, and the emporia of Limyrike.

With regard to Barbarikon, it is noted that the coastline of Skythia lies directly to the north and is very flat; that the white water which has emptied from the Indus River into the sea is recognizable far before one reaches land; that the ships moor at Barbarikon, whereupon the commodities are unloaded and taken upriver to Minnagar.⁹ Moreover, the dangers of the Eirion and Barake gulfs (the Rann and the Gulf of Kutch) are meticulously detailed.¹⁰ It is emphasized that the approach to the emporion of Barygaza is problematic due to the inconspicuousness of the very low coastline and the shoal-waters of the river, 300 stades (= c.55 kilometres) upstream of which the emporion of Barygaza lay.¹¹ It is specified how 'royal fishermen' with different types of oared ships – called *trappaga* and *kotymba* – used to meet mercantile vessels off the Kathiawar Peninsula, and lead and tow them up to the emporion, stopping in deep water places and proceeding only during high tide.¹² The description of the great tides, rising around the new and full moon, and of the difficult navigation in the Gulf of Barygaza (Bharuch) are certainly among the most accurately written passages of the entire *Periplus*.¹³

Also accurate is the description of the small strip of land that contains the Limyrike pepper emporia, Tyndis and especially Muziris and Bakare/Nelkynda, the chief pepper ports of the time (mid-first century CE). Apart from recording the exact distances between them – 500 stades between Tyndis and Muziris; 20 stades between Muziris and the mouths of its river; 500 stades between Muziris and Nelkynda; and 120 stades between Nelkynda and the mouths of its river¹⁴ – the author clarifies that the ships that moored at Nelkynda – very large vessels used to sail to these emporia 'because of the large mass and quantities of pepper and malabathron'¹⁵ – had to be loaded in the sea just off Bakare, a village at the mouth

of the river that passes Nelkynda, because the river had sandbanks and passages that are shoals.¹⁶

The accuracy of these descriptions may be explained with the implications of what the same author writes at chapter 57, where he notes that thanks to Hippalos' discovery of the route over open water between Arabia and India, his contemporaries keep on reaching either the emporia of Limyrike, or Barygaza, or Barbarikon, the emporion of Minnagar (metropolis of Skythia):¹⁷ the three Indian (groups of) emporia that are best described in the *Periplus* are those usually visited by Western merchants. It is no coincidence that each of the sections devoted to these three destinations is accompanied by: a) details about the signs which vessels coming from the open sea can use to identify the oncoming coast,¹⁸ b) a very accurate list of commodities that can be exchanged, and c) notation of the most appropriate time for a departure from Egypt.¹⁹ In sum, there is a direct correlation between the presence of the Western merchants in such emporia and the accuracy of the information reported by the author of the *Periplus*.

Less rich, but still detailed is the section devoted to the Southward Road (*Dakṣiṇāpatha*). Quite remarkable is the explanation that the land is called 'Dachinabades' because the land after Barygaza runs from north to south, *dachanos* (cf. skt. *Dakṣina*) meaning 'South' in the Indian language.²⁰ Moreover, it is reported that in the inland regions towards the east (ἡ μὲν ὑπερκειμένη πρὸς ἀνατολὰς μεσόγειος) there are many cultivated lands, deserts and big mountains with all kind of wild animals.²¹ It is stated that Dachinabades' two outstanding emporia, Paithana (< Pratiṣṭhāna = Paithan, Maharastra) and Tagara (Ter, Maharastra), were a twenty-day southwards journey from Barygaza to the former and about a ten-day eastwards journey from Paithana to the latter.²² The commodities from Paithana and Tagara that reached Barygaza – onyx and ordinary cloth, in the first place – were conveyed by wagons at certain stages and at others by use of roadless tracts.²³ The sources for this information were the Western merchants who visited Barygaza, who could either question the Indian merchants trading between Tagara and Barygaza or even travel themselves some stretches of the Southern Road. The circumstance that the author of the *Periplus* knew the distances of the Barygaza–Paithana and Paithana–Tagara legs, whereas he ignored the names and the distances of the emporia beyond Tagara, suggests that his informers travelled only the first legs of the Southward Road, possibly because they could stay in India no longer than two or three months.²⁴

When contrasted with these sections, the report on the coastline comprised between Barygaza and Tyndis appears as a plain and simple sequence of names of *local* emporia (τοπικὰ ἐμπόρια), islands, or places with no indication whatsoever of either the distances between them or the goods exchanged in any of them:

τοπικὰ δὲ ἐμπόρια κατὰ τὸ ἐξῆς κείμενα Ἀκαβαρου Σούπαρα καὶ Καλλίενα πόλις, ἡ ἐπὶ τῶν Σαραγάνου τοῦ πρεσβυτέρου χρόνων ἐμπόριον ἐνθεσμον γενομένη· μετὰ γὰρ τὸ κατασχεῖν αὐτὴν Σανδάνην ἐκωλύθη ἐπὶ πολὺ· καὶ γὰρ τὰ ἐκ τύχης εἰς τούτους τοὺς τόπους ἐσβάλλοντα πλοῖα Ἑλληνικὰ μετὰ φυλακῆς εἰς Βαρύγαζαν εἰσάγεται. μετὰ δὲ Καλλίεναν ἄλλα ἐμπόρια τοπικὰ Σήμυλλα καὶ Μανδαγόρα καὶ Παλαιπάτμαι καὶ Μελιζειγρά καὶ Βυζάντιον †

τοπαρον καὶ τύραννος βοας ἔ. εἴτα Σησεκρείεναι λεγόμεναι νῆσοι καὶ ἡ τῶν Αἰγιδίων καὶ ἡ τῶν Καινειτῶν κατὰ τὴν λεγομένην Χερσόνησον, καθ' οὓς τόπους εἰσὶν πειραταί, καὶ μετὰ ταύτην Λευκὴ νῆσος.²⁵

The local emporia, lying in a row, are Akabaru, Suppara and the city of Kalliena, which was a lawful emporion in the time of the elder Saraganos. After Sandanes occupied it, there has been much hindrance. For the Greek ships that by chance come into these places are brought under guard to Barygaza. Beyond Kalliena other local ports of trade are: Semylla, Mandagora, Palaipatmai, Melizeigara, Byzantion, Toparon, Tyrannosboas. Then come the Sesekreienai Islands as they are called, the Isle of the Aigidioi, the Isle of the Kainetai near what is called the Chersonesos, around which places there are pirates, and next Leuke Island. (transl. by L. Casson, with modifications)

The passage may be divided in three subsections. The first one comprises the local emporia up to Kalliena, the second the local emporia after Kalliena, and the third one the islands and the Chersonesos before Limyrike. Apart from the problematic Akabaru,²⁶ the local emporia of the first subsection may be safely identified and located: Suppara is Śūrpāraka (Nala Sopara, Maharashtra) and Kalliena is Kaliyāṇa (Kalyan, Maharashtra).²⁷ The inclusion of these local emporia in the visual horizon of the *Periplus*' author is not difficult to explain. Although strangely missing in Ptolemy's *Geography*, Kalliena remained an important crossroad of the Deccan trade during all of Antiquity.²⁸ At the time of the elder Saraganos (presumably a couple of generations before the *Periplus of the Erythraean Sea* was written), Kalliena had been a legitimate emporion regularly visited by Western ships. After Sandanes took it over, Western merchants stopped heading for Kalliena, but kept on accidentally mooring there. The previous deliberate visits, the more recent incidental stopovers and the reports of the local traders must have somehow kept Kalliena and its intra-regional trade network in the mental map of the Graeco-Egyptian sea captains accustomed to visit Barygaza.

Sometimes with graphic or phonetic variants, several place names of the local emporia beyond Kalliena (mentioned in the second subsection) occur in Ptolemy as well.²⁹ Their current identifications are of varying plausibility.³⁰ Semylla is certainly Cemula of the Prakrit inscriptions (Chaul, Maharashtra). Melizeigara, especially if it is the same as Pliny's Sigerus and Ptolemy's Milizigeris Island, may be Janjira Island (Maharashtra).³¹ Mandagora and Byzantion recall the modern toponyms of Mandangad and Vijaydurg (Maharashtra), respectively.³² To Palaipatmai corresponds Ptolemy's Balepatma, listed after Semylla but before Mandagora in the *Geographia*. On the other hand, Ptolemy is of no help in solving the mystery of the probably corrupt readings τοπαρον καὶ τύραννος βοας.

Semylla continued to be familiar to the Western traders of Ptolemy's age (mid-second century CE). It was based on the reports of both Western and Indian traders that Ptolemy could disprove the location of Semylla claimed by Marinus, and argue that Semylla was just south, not south-west of the Indus' mouths.³³

Those identifications/approximations seem to be based on the implicit assumption that since the islands are mentioned between the local emporia beyond Semylla and the Limyrike emporia, they must be searched for south of the latitude of the former and north of the latitude of the latter. In turn, this assumption may seem supported by the circumstance that the author of the *Periplus* was able to estimate the length of the west coast of India up to Limyrike: Ὁ δ' ὅλος παράπλους μέχρι τῆς Λιμυρικῆς ἐστὶν σταδίων ἑπτακισχιλίων, πλεῖστοι ἄρ' εἰς Αἰγιαλόν. (The entire coasting voyage as far as Limyrike is 7,000 stades, but . . . to the Strand.)³⁷

In all likelihood, the 7,000 stades are measured from the promontory near Astakpra opposite to Barygaza, which is the point of reference of another length estimate by the author: Ὁ δὲ παράπλους ταύτης τῆς χώρας ἀπὸ τοῦ Βαρβαρικῶν μέχρι τοῦ κατὰ Ἀστάκαπρα πέραν Βαρυγάζων ἀκρωτηρίου, τῆς λεγομένης Παπικῆς, ἐστὶ σταδίων τρισχιλίων. (The coasting voyage of this region (called Papike) from Barbarikon up to the promontory near Astakpra opposite to Barygaza is of 3,000 stades.)³⁸

Therefore, the author of the *Periplus* estimated in 10,000 stades the length of the entire west coast of India, from the Indus' mouth to Limyrike. Do these estimates prove that the author of the *Periplus* or his informers surveyed the entire coastline? Although the 3,000 stades are an underestimate of the real length,³⁹ it seems reasonable to assume that the relatively short distance between Barbarikon and Astakpra and the multiple navigational dangers recorded in those waters derive from a detailed charting of the sites and an evaluation of the distances. For the longer distance (from Astakpra) up to Limyrike, the hypothesis that the length of 7,000 stades may have been learnt from seamen that used to ply between Ariake and Muziris is not recommended by the very dry account about the local emporia after Barygaza, where no intermediate distance is given.⁴⁰ Alternatively, it may be suggested that the 7,000 stades from Astakpra to Limyrike may have been worked out from the travel time of the first leg of the Southward Road. In fact, the author of the *Periplus* clarifies that after Barygaza, the adjoining land runs from north to south: μετὰ δὲ Βαρύγαζαν εὐθέως ἡ συναφὴς ἡπειρος ἐκ τοῦ βορέου εἰς τὸν νότον παρεκτείνει. (Immediately after Barygaza the coast runs from north to south.)⁴¹

Approximately in the same direction proceeded the twenty-day Barygaza–Paithana journey:

τῶν δὲ ἐν αὐτῇ τῇ Δαχίναβάδει δύο ἐστὶν τὰ διασημότεα ἐμπόρια, Παίθανα μὲν ἀπὸ Βαρυγάζων ἔχουσα ὁδὸν ἡμερῶν εἴκοσι πρὸς νότον, ἀπὸ <δὲ> ταύτης ὡς ἡμερῶν δέκα πρὸς ἀνατολὴν ἑτέρα πόλις μεγίστη Ταγάρα.

Two are the most outstanding emporia among those in *Dachinabades*: Paithana, at a distance from Barygaza of twenty-day travel southwards, and, from Paithana at about ten-day travel towards east, another very large city, Tagara.⁴²

The southward direction of the Southward Road must have guaranteed, in the eyes of the author of the *Periplus*, that the approximately parallel coastline beyond Barygaza proceeded from north to south for at least the estimated distance

between Barygaza and Paithana. He may have assumed a travel speed of 270/300 stades per day, so arriving at an (overestimated) distance of 5,400/6,000 stades for the twenty-day southwards Barygaza–Paithana voyage.⁴³ The difference to 7,000 may account for the difference in latitude between Paithana and Limyrice, leading to the round length of 10,000 stades for the whole West Coast of India.⁴⁴

Incidentally, it is interesting to note that the author of the *Periplus* oriented eastward the subsequent leg of the Southward Road, the Paithana–Tagara (Ter, Maharastra) road, which may have been even more north–south oriented than the Barygaza–Paithana leg was.⁴⁵ Probably, the distortion of the Paithana–Tagara leg



Figure 5.3 Map of sites on the western coast of India (courtesy of Matthew Adam Cobb; drawn by Martin Crampin)

seemed necessary to conciliate the thirty days of the Barygaza–Tagara journey with a plausible location of Limyrike, which may have seemed unconceivable at more than 9,000 stades south of Astakapra.⁴⁶ A more radical distortion of the *Dakṣiṇāpatha* direction was designed by Ptolemy, who locates Paithana (Baithana) not south, but north of Barygaza, and Tagara north-east of Paithana.⁴⁷ It is not coincidental that the hodonym/choronym *Dachinabades* (<*Dakṣiṇāpatha*, the Southward Road) is mentioned and explained in the *Periplus*, whereas it does not even occur in Ptolemy.⁴⁸ It is not coincidental, because the 7,000 stades estimated by the former for the distance between Astakapra and Limyrike give enough space to lay southwards (πρὸς νότον) the twenty-day road from Barygaza to Paithan, whereas in Ptolemy’s map there are only 3° 30’ of difference in latitude (in Ptolemy’s terms, 1,750 stades), and 3° 45’ in longitude between Barygaza and Muziris: too little, for any Barygaza–Paithana Southward Road.⁴⁹

It may be interesting to note that the above mentioned map of Ortelius locates the Sesekreienai Islands in front of Nelkynda, and the Island of the Aigidioi and Leuke Island south of Cape Comorin, toward Taprobana/Palesimundi insula. The



Figure 5.4 Abraham Ortelius, *Theatrum Orbis Terrarum*, map of the Indian Ocean (particular) (image from the National Library of Wales)

positioning of these islands – and particularly that of Leuke Island – is based neither on the contemporary Portuguese maps nor on the vague passage of the *Periplus*.

Rather, it seems to have been prompted by an interpretation of Ptolemy's locations for the Island of the Aigidioi and Leuke Island. The first is mentioned in the group of islands that lie in front of Taprobane:

Πρόκειται δὲ τῆς Ταπροβάνης στῖφος νήσων, ἃς φασιν εἶναι τὸν ἀριθμὸν χιλίας τριακοσίας ἐβδομήκοντα ὀκτώ· ὧν μέντοι τὰ ὀνόματα φέρεται, εἰσὶν αἶδε·

Οὐάνγανα	ρκ° δ´	ια° γ´
Κάναθρα	ρκα° γο´	ια° δ´
Ὅρνέων	ριθ°	η° L´
Αἰγιδίων	ριη°	η° L´

A group of islands lies in front of Taprobane. They say that they are 1,378. Among them, those which have a name are the following:

Uangana	120° 15´	11° 20´
Kanathra	121° 40´	11° 15´
Orneon	119°	8° 30´
Aigidion	118°	8° 30´ ⁵⁰

The second is mentioned among the islands that lie along the coast up to the Kolchik Gulf:

Ἐν δὲ τῇ μέτρῃ τοῦ Κολχικοῦ κόλπου παραλίῳ

Μιλιζιγηρίς	ρι°	ιβ° L´
Ἑπτανησία νῆσος	ριγ°	ιγ°
Τρικάδιβα	ριγ° L´	ια°
Πεπερίνη	ριε°	ιβ° γο´
Τρινησία νῆσος	ρις° γ´	ιβ°
Λεύκη	ριη°	ιβ°
Νανιγηρίς	ρκβ°	ιβ°

In the seaboard, up to the Kolchik Gulf:

Milizigeris	110°	12° 30´
Heptanesia Island	113°	13°
Trikadiba	113° 30	11°
Peperine	115°	12° 40´
Trinesia Island	116° 20´	12°
Leuke	118°	12°
Nanigeris	122°	12° ⁵¹

Of course, Ptolemy's coordinates cannot be taken at face value, but it is unjust to consider them as if they were randomly put.⁵² On the contrary, if they are seen together with Ptolemy's coordinates of the West Coast of India, they may give a clue to the location of the Island of the Aigidioi and Leuke Island. The Island of the Aigidioi (located at 118°, 8° 30') and Leuke Island (located at 118°, 12°) are aligned on the same meridian west of Muziris (positioned at 117°, 14°) and east of Bakare (positioned at 119° 30', 14° 30'). Due to Ptolemy's 90° anti-clockwise rotation of the coast of India beyond Semylla, the longitude values of both the coastal sites and the islands in front of them may be taken as approximations for real latitude values. Conversely, the latitude values may be taken as approximations for real longitude values. Therefore, the Island of the Aigidioi and the Leuke Island may have been not far from the latitudes of the major Limyrike emporia, the former farther, the latter closer to the coastline, which Ptolemy makes running in the west–east direction around 14° N.⁵³ By the way, it may be noted that Ptolemy lists Leuke Island, closer to the coast, with the islands that lie along the coast up to the Kolchik Gulf, whereas the Island of the Aigidioi, further off, is perceived as one of islands that lie in front of Taprobane.

The Ptolemaic longitudes of the two islands – as well as the Sesekreienai Islands and the Island of the Kainetai – strongly suggest that they belong to the Lakshadweep archipelago, collectively referred to by the *Periplus*' author as the islands lying off Limyrike.⁵⁴ Since the Lakshadweep were certainly sailed past by the Western ships bound for the Limyrike emporia, it is very likely that the islands mentioned in chapter 53 of the *Periplus* were used as landmarks by the ships bound for the Limyrike emporia. In particular, while the Island of the Aigidioi and Leuke Island piloted the sailing to Muziris and Bakare, the sight of the island of the Kainetai and the so-called Chersonesos warned the ships away from the pirates lurking there.

Identifying the various nesonyms given by the author of the *Periplus* and Ptolemy with any particular landmass is not currently feasible and best avoided. By contrast, it is possible to suggest a location for Chersonesos (Peninsula), clearly another landmark, but on the coast.

Ptolemy locates Chersonesos 'west' (that is north) of Limyrike:

Χερσόνησος	ρ1δ° γ´	1δ° L´
Ναναγούνα ποταμοῦ ἐκβολαί	ρ1δ° L´	1γ° Lγ´
Ἀρμάγαρα	ρ1ε°	1δ° γ´
Νίτρα ἐμπόριον	ρ1ε° L´	1δ° γο´
Λιμυρικῆς		
Τύνδεις πόλις	ρ1ς°	1δ° L´
Chersonesos	114° 20´	14° 30´
Mouths of the Nanaguna River	114° 30´	14° 50´
Armagara	115°	14° 20´
Nitra, emporion	115° 30´	14° 40´
Belonging to Limyrike:		
Tyndis, town	116°	14° 30´ ⁵⁵

Pliny states that close to Muziris is a place called Nitriai which is occupied by pirates.⁵⁶ Pliny's Nitriai is hardly different from Ptolemy's Νίτρα ἐμπόριον, located (115° 30', 14° 40') approximately midway between Muziris (117°, 14°) and Chersonesos (114° 20', 14° 30'). All these clues invite us to identify the so-called Chersonesos with Mount Ely (Delly). Visible in fine weather at 27 miles' distance⁵⁷ and marked in many of the earliest Portuguese maps,⁵⁸ it was a prominent landmark for early modern seafarers, as Duarte Barbosa points out:

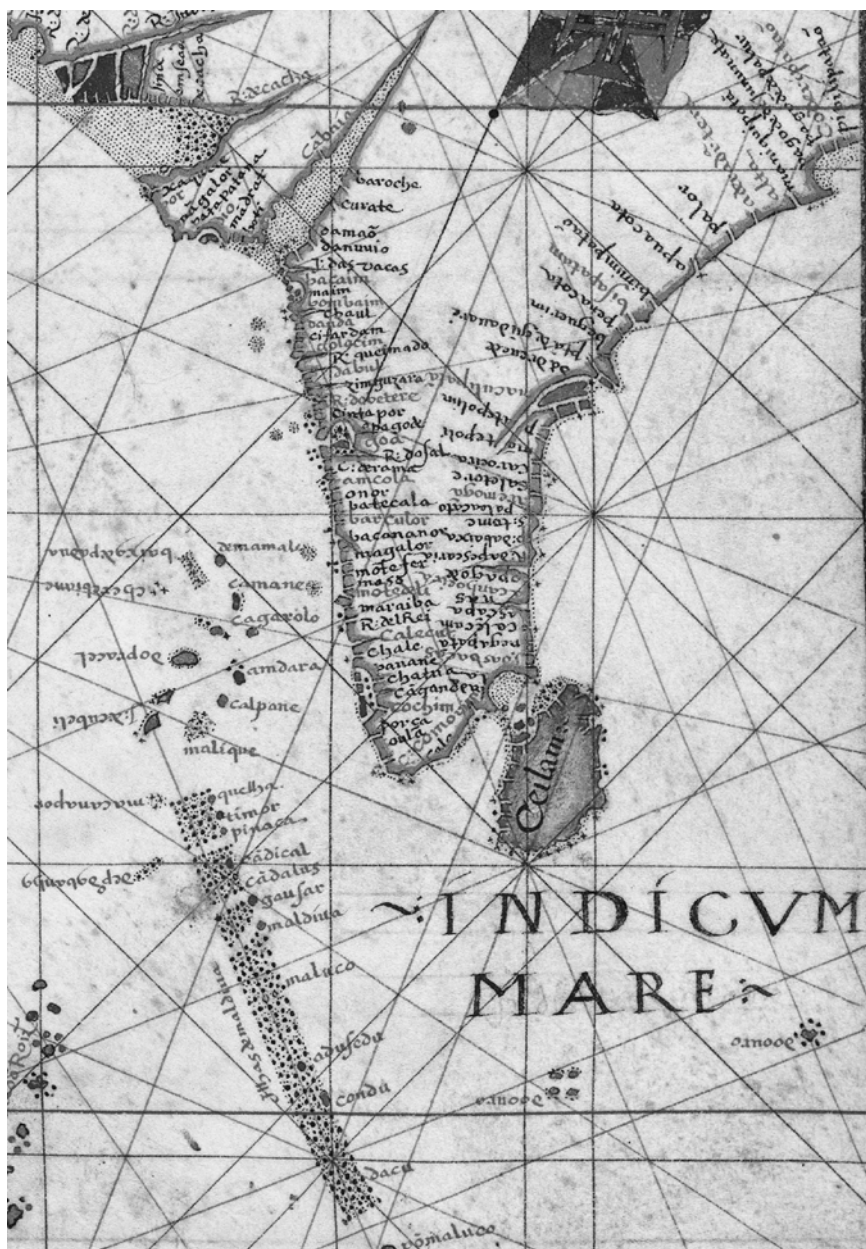
After passing this place further along the coast is the Mount D'Ely, a mountain of great height and round, in the midst of low land whither all the ships of both Moors and Heathen steer, and from it they make their reckoning when they are about to sail. From this mountain flow many springs where the ships take in their water. On it is much wood among which is abundance of wild cinnamon. (transl. by M. Longworth Dames)⁵⁹

It was probably Mount Ely (Delly) the *terra alta* first sighted by Vasco da Gama's fleet in his 1498 voyage from Malindi to Calicut.⁶⁰

The following Sunday [29 April] we again saw the North Star, which we had not seen for a long time. On a Friday, which was the 18th day of May, we sighted lofty mountains, it having been twenty three days without seeing land. During all these days we sailed with the wind behind us, so that the shortest distance we could have covered on this crossing was six hundred leagues. We found ourselves eight leagues from land, when we first sighted it. We launched the lead and found forty five fathoms. (transl. by G. J. Ames)⁶¹

If this interpretation of *Periplus* 53 is correct, the description of the West Coast of India results from a patchwork of the following components:

- 1 Description of the Barbarikon/Minnagar emporion and its surroundings based on the accounts of the merchants from Egypt who visited it (chapters 38–40).
- 2 Description of the Barygaza emporion and its hinterland based on the accounts of the merchants from Egypt who visited it (chapters 41–49).
- 3 Description of the Southward Road (*Dachinabades*) Barygaza–Paithana–Tagara based on the accounts of the merchants from Egypt who visited Barygaza and travelled from there to Paithana and Tagara (chapters 50–51).
- 4 Description of the local emporia beyond Barygaza based on the accounts of the merchants from Egypt who visited Barygaza and gather information from the local Indian merchants who visited Barygaza (chapters 52–53).
- 5 Description of the islands 'lying off Limyrike' and description of Limyrike emporia, both based the accounts of the merchants from Egypt who visited Muziris and Bekare/Nelkynda (chapters 53–56, 58).



Notes

- 1 Marcotte (2017): 36–37.
- 2 In addition to the arguments given by Ramusio (1550): 1.695, Ortelius points out the different place names mentioned by the two authors: ‘Utut sit, diversos facile lector intelliget, qui utriusque huius nempe Nearchi ab Indo flumine ad Tigridis ostii navigationem, cum illius contra ab eodem ostio ad dictum Indum, quem Sinthum nuncupat, legendo contulerit: ne uno quidem loci nomine inter hos namque convenire deprehendet.’ Arrian’s authorship, also denied by Salmasius (1629): 1186, based on the similarities with Plin. *HN* 6.100–106, is incompatible with the mention of the Nabataean king Malichos (*Periplus* 19: Λευκή κόμη, δι’ ἧς ἐστὶν εἰς Πέτραν πρὸς Μαλίχαν, βασιλέα Ναβαταίων, <ἀνάβασις>), which dates the work to a year between 40–70 CE, cf. Bowersock (1983): 70 nt. 37; Casson (1989): 7.
- 3 The *editio princeps* by Sigismund Gelenius (Basel 1533). An Italian translation of the *Periplus of the Erythraean Sea* had been included by Ramusio in the first volume of his *Navigazioni e viaggi* (Venice 1550).
- 4 *Periplus* 57: τοῦτον δὲ ὅλον τὸν εἰρημένον περίπλουν ἀπὸ Κανῆς καὶ τῆς Εὐδαίμονος Ἀραβίας οἱ μὲν <πρότεροι> μικροτέροις πλοίοις περικολπίζοντες ἔπλεον, πρῶτος δὲ Ἴππαλος κυβερνήτης, κατανοήσας τὴν θέσιν τῶν ἐμπορίων καὶ τὸ σχῆμα τῆς θαλάσσης, τὸν διὰ πελάγους ἐξεῦρε πλοῦν. Cf. Marcotte (2016): 35, ‘Ces mots témoignent clairement d’une perception des enjeux cartographiques de la description des côtes.’
- 5 Ramusio (1550): 1.695: ‘e in molti altri luoghi si comprende che Arriano [sc. the author of the *Periplus*, called Arriano Eritreo, to account for the authorship attributed by the manuscript and to distinguish him from the author of the *Anabasis*] ebbe molto maggior notizia delle cose dell’India che non ebbe Tolomeo, e massime della costa di Calicut, la qual secondo le carte marine portoghesi corre da tramontana verso mezzodi: e Arriano scrive il medesimo, dicendo che da Barigaza la terra ferma che seguita si estende verso ostro [emphasis added], e non è dubio alcuno che Barigaza è sopra detta costa non troppo lontana dalle bocche del fiume Indo.’
- 6 This was suggested by Casson (1989): 8: ‘He [sc. the author of the *Periplus*] seems to have been a merchant who, after sailing the routes the *Periplus* describes and trading in the products it lists, decided to write a handbook on the subject.’ *Contra* Arnaud (2012): 29: ‘l’idée qu’un même personnage ait pratiqué dans le cadre de son métier de marchand l’intégralité des routes de l’Océan Indien est une vue de l’esprit.’
- 7 A couple of verbs in the first-person plural describing standard sailing procedures in the Red Sea (*Periplus* 20) mark him as an insider of the Red Sea seafarers’ community, possibly a κυβερνήτης. His comparisons with the ‘trees among us in Egypt’ (*Periplus* 29) and with Alexandria’s trading activities (*Periplus* 26) show that he is writing from Egypt for a public who may be familiar with the province, though not necessarily Egyptian, as the rough correspondences between Egyptian and Roman months (*Periplus* 6, 14, 39, 49, 56) demonstrate (Arnaud (2012): 31–34). The *Periplus of the Erythraean Sea* was certainly read by Marcian of Heraclea (Marcotte (2012): 18–20). The hypothesis of an identification of the author with Σώσανδρος ὁ κυβερνήτης, <ὁ> τὰ κατὰ τὴν Ἰνδικὴν γράψας (Marcian. *Epitome Peripli Menippeï* 2 (GGM 1. 565 = *FGrHist* 714 T 1)) is raised by De Romanis (2016): 105–106.
- 8 Plin. *HN* 6.96–106.
- 9 *Periplus* 38–39.
- 10 *Periplus* 40.
- 11 *Periplus* 43.
- 12 *Periplus* 44.
- 13 *Periplus* 45–46.
- 14 *Periplus* 54.
- 15 *Periplus* 56: πλεῖ δὲ εἰς τὰ ἐμπόρια ταῦτα μέ<γι>στα πλοῖα διὰ τὸν ὄγκον καὶ τὸ πλῆθος τοῦ πτερέως καὶ τοῦ μαλαβάθρου, ‘Very large vessels to these [sc. Limyrike’s] emporia

on account of the weight and the volume of the pepper and malabathron'. For the correction μέ<γ>στα, De Romanis (1996): 178–180, nt. 40.

16 *Periplus* 55.

17 *Periplus* 57: ἀφ' οὗ μέχρι καὶ νῦν τινὲς μὲν εὐθὺς ἀπὸ Κανὴ, τινὲς δὲ ἀπὸ τῶν Ἀρωμάτων ἀφιέντες, οἱ μὲν εἰς Λιμυρικὴν πλέοντες ἐπὶ πλείον τραχηλίζοντες, οἱ δὲ εἰς Βαρύγαζαν οἱ τε (Müller: οἱ δὲ) εἰς Σκυθίαν οὐ πλείον ἢ τρεῖς ἡμέρας ἀντέχουσι κτλ. 'Since then right up to the present, some leave directly from Kane and some from the Promontory of Spices, and whoever are bound for Limyrike hold out with the wind on the quarter for most of the way, but whoever are bound for Barygaza and whoever for Skythia only three days and no more etc.' (transl. by L. Casson, with modifications).

18 *Periplus* 38; 40; 55.

19 *Periplus* 39; 49; 56.

20 *Periplus* 50: μετὰ δὲ Βαρύγαζαν εὐθέως ἡ συναφὴς ἡπειρος ἐκ τοῦ βορέου εἰς τὸν νότον παρεκτείνει· διὸ καὶ Δαχινάβης καλεῖται ἡ χώρα· δάχανος γὰρ καλεῖται ὁ νότος τῇ αὐτῶν γλώσσει, 'Immediately beyond Barygaza the land runs from north to south. Thus the region is called Dachinabades, for the word for south in their language is *dachanos*.' The hodonym/choronym *Dakṣiṇāpatha* occurs in *Arthaśāstra* 7.12.22–24 and in the titulature of several Sātavāhana rulers who styled themselves as 'Lords of *Dakṣiṇāpatha*' (*Dakṣiṇāpathapati* and *Dakṣiṇāpathesara*), cf. De Romanis (2012): 329–335.

21 *Periplus* 50.

22 *Periplus* 51: τῶν δὲ ἐν αὐτῇ τῇ Δαχινάβει δύο ἐστὶν τὰ διασημότερα ἐμπόρια, Παῖθανα μὲν (Schwanbeck : ἐπιφανόμενα) ἀπὸ Βαρυγάζων ἔχουσα ὁδὸν ἡμερῶν εἰκοσι πρὸς νότον, ἀπὸ (δὲ) ταύτης ὡς ἡμερῶν δέκα πρὸς ἀνατολὴν ἑτέρα πόλις μεγίστη Ταγάρα (Ταγάρα μεγίστη transp. Fabricius), 'Of the trading centers in the region of Dachinabades, two are the most outstanding: Paithana, twenty days' travel to the south from Barygaza; and, from Paithana, about ten days to the east, another very large city, Tagara' (transl. by L. Casson). In an inscription from Kanheri (Gokhale (1991): nt. 6) the hodonym/choronym *Paithānāpatha* (the Road to *Paithāna*) is attested.

23 *Periplus* 51: κατὰγεται δὲ ἐξ αὐτῶν πορεῖαι ἀμαζῶν καὶ ἀνοδίας μεγίσταις εἰς τὴν Βαρύγαζαν ἀπὸ μὲν Παρθάνων (Schwanbeck : πλιθάνων) ὄνυχιν λιθία πλείστη, ἀπὸ δὲ Ταγάρων ὀθόνιον πολὺ[v] χυδαῖον καὶ σινδόνων παντοῖα καὶ μολόχινα καὶ τινα ἄλλα τοπικῶς ἐκεῖ προχωροῦντα φορτία τῶν παραθαλασσίων μερῶν, 'From these there is brought to Barygaza with journeys of wagons and long roadless tracts: from Paithana large quantities of onyx, and from Tagara large quantities of cloth of ordinary quality, all kinds of cotton garments, garments of molochinon, and certain other merchandise from the coastal parts that finds a market locally there' (transl. by L. Casson, with modifications). The opposition between πορεῖαι ἀμαζῶν and ἀνοδίαί μεγίσταις somewhat parallels the distinction between *cakrapatha* 'the wheel-track', *pādapatha* 'the foot-path' and *kharoṣṭrapatha* 'the ass- or camel-road' in *Arthaśāstra* 7.12.27: *tatrāpi cakrapādapathayoścakrapatho vipulārambhatvātcchreyān, deśakālasambhāvano vā kharoṣṭrapathah*. 'As between a wheel-track and a foot-path, the wheel-track is preferable, as it enables undertakings on a large scale. Alternatively, path for donkeys and camels in conformity with place and time (is to be preferred)' (transl. by R.P. Kangle).

24 It should be noticed that the author is aware that some of the commodities available in Tagara were imported from coastal sites (on the Bay of Bengal, apparently): *Periplus* 51, quoted above, nts. 23 and 24. The Western merchants who traded with Limyrike used to arrive in India about the beginning of October and begin their return voyage between December and January 13th: Plin. *HN* 6.104–106.

25 *Periplus* 52–53.

26 Casson (1989): 263.

27 Suppara appears also in Ptol. *Geog.* 7.1.6. People from Kalliena and Suppara appear as donors in the Kanheri inscriptions: Gokhale (1991): ns. 3, 4, 6, 25, 28, 29, 40, 43, 55; and ns. 17, 24, 32, 46, respectively. A Buddhist monastery in Suppara (*Sopārakāvihāra*) is attested in n. 6.

- 28 Kalliena will be mentioned again (as Καλλιανᾶ) among the major Indian emporia by Kosmas Indicopleustes 11.16; cf. also 3.65; 11.15.
- 29 For Semylla, Mandagora, Palaipatma, Byzantion, cf. Ptol. *Geog.* 7.1.6–7: Σίμυλλα (Σήμυλα) ἐμπόριον καὶ ἄκρον ρι° ιδ° Lδ', Βαληπάτνα ρια° L' ιδ° γ', Ἰππόκουρα ρια° Lδ' ιδ°, Ἀνδρῶν Πειρατῶν Μανδαγόρα ριγ° ιδ° ζ', Βυζάντιον ριγ° γο' ιδ° γο'.
- 30 Casson (1989): 297.
- 31 For Cemula in the inscriptions, Gokhale (1991) nn. 18, 20; for Melizeigara, Shinde Gupta, and Rajgor (2002): 75; 78; Plin. *HN* 6.101: *secuta aetas propiorem cursum tutioremque iudicavit, si ab eodem promunturio Sigerum portum Indiae peteret*. Ptol. *Geog.* 7.1.95: Μιλιζιγῆρις ρι° ιβ° L'.
- 32 Mandagora is located at Bānkot by Casson (1989): 297; at Kuda Mandad by Shinde, Gupta and Rajgor (2002): 75; 77–78.
- 33 Ptol. *Geog.* 1.17.3–4: καὶ πάλιν τὰ Σίμυλλα τὸ τῆς Ἰνδικῆς ἐμπόριον μὴ μόνον τοῦ Κομαρέως ἀκρωτηρίου δυτικώτερον ὑπ' αὐτοῦ θεθεμένον, ἀλλὰ καὶ τοῦ Ἰνδοῦ ποταμοῦ. μόνον γὰρ μεσημβρινώτερον ὁμολογεῖται τῶν στομάτων εἶναι τοῦ ποταμοῦ παρὰ τε τῶν ἐντεῦθεν εἰσπλευσάντων καὶ χρόνον πλεῖστον ἐπελθόντων τοὺς τόπους, καὶ παρὰ τῶν ἐκείθεν ἀφικομένων πρὸς ἡμᾶς, καλούμενον ὑπὸ τῶν ἐγγχωρίων Τίμουλα. 'Again, he puts "Semylla" (the trading post in India) west not only of Cape Komaria, but also of the river Indus. But there is a consensus among those who have come to us from there, that [this place] is just south [and not west] of the mouths of the river, and it is called "Timoula" by the natives' (transl. by Berggren and Jones, 2000).
- 34 Berthelot (1930): 323: 'Dans cette section de l'embouchure de Namadès au cap Komaria, il a commis une erreur fondamentale, déplaçant d'à peu près un quart de cercle la ligne du rivage et conséquemment l'arrière-pays; il l'a dirigée d'ouest en est, alors qu'elle va du nord au sud. Il a de plus beaucoup augmenté la dimension des saillies et enfoncements de cette côte qui est presque rectiligne. Les conséquences de cette erreur générale se manifestent sur la position même de Barugaza. Conformément au déplacement de la ligne de rivage, la Nerbada qui lui est perpendiculaire a été supposée dans sa partie finale couler du nord au sud (au lieu de l'est à l'ouest);' Winkler and Mittenhuber (2009): 301: 'Der Küstenverlauf stellt sich im Einzelnen so dar: Vom Indus-Delta verläuft die Westküste Indiens bei Ptolemaios zunächst nach Süden und knickt dann beim weit vorspringenden Kap Simylla/Chaul nach Ostem um; in Wahrheit verläuft die Küste eher in Süd-Osten Richtung. Während sich in der Realität die weitere Küste bis zur Südspitze Indiens, dem Kap Komaria/Comorin, nach Süden zieht, verläuft sie bei Ptolemaios bis zum Kap Kory/Rameswaram, gegenüber der Insel Taprobane, genau nach Osten.'
- 35 Talbert (2000), Map 5 and its Directory (compiled by U. E. Erdosy), p. 60 (Island of the Aigidioi); p. 62 (Chersonesos); p. 65 (Leuke Island); p. 69 (Sesekreienai Islands). In the Directory, I do not find the Island of the Kainetai, but since in the Map it is marked in front of Chersonesos, and since Chersonesos is identified with Karwar, its identification with Oyster Rock (or any other islet in front of Karwar) seems implied.
- 36 Vincent (1807): 2.432–435; McCrindle (1879): 129–130; Müller (1855): 1.296; Schoff (1912): 200–201; Casson (1989): 297.
- 37 *Periplus* 51. The manuscript reading πλεῖστοι δὲ εἰς Αἰγιαλόν has been variously understood. For instance: 'alia vero plurima [sc. stadia] sunt ad Aegialum' (Müller); 'but the distance is greater to the Coast Country' (Schoff); 'but most vessels continue on to the Strand' (Casson); 'ma sono moltissimi [sc. stadi] fino all'Aigialos' (Belfiore). It seems to me that the text requires correction.
- 38 *Periplus* 41.
- 39 Casson (1989): 281.
- 40 *Periplus* 54: ἡ δὲ Μούζιρις βασιλείας μὲν τῆς αὐτῆς, ἀκμάζουσα δὲ τοῖς ἀπὸ τῆς Ἀριακῆς εἰς αὐτὴν ἐρχομένοις πλοίοις καὶ τοῖς Ἑλληνικοῖς, 'Muziris, of the same kingdom, is in full bloom for both the ships that come there from Ariake and the Greek vessels.'
- 41 *Periplus* 50.

42 *Periplus* 51.

43 Ptolemy assumes 270 stades as the distance covered in a day journey overland in Ptol. *Geog.* 1.10.2: τὴν μέντοι μεταξύ διάστασιν τῆς Μεγάλης Λέπτεως καὶ τῆς Γαράμης τηρητέον, ὥς ὃ τε Φλάκκος καὶ ὁ Μάτερνος ὑπέθεντο, σταδίων πεντακισχίλιον τετρακοσίων. αἱ τε γὰρ εἴκοσιν ἡμέραι δευτέρας εἰσὶν ὁδοῦ παρὰ τὴν πρώτην ἐπιτετημένης ὥς πρὸς τὴν μεσημβρίαν ἢ τὰς ἄρκτους, ἐκείνης διὰ τὰς ἐκτροπὰς ἡμερῶν οὔσης τριάκοντα, ‘We should, however, retain the interval between Leptis Magna and Garamē as Flaccus and Maternus set it, as 5,400 stades. For the twenty days belong to a return journey, which was shorter in comparison with the first, since [the return] was in a north–south direction while the [first journey] was thirty days long because of the diversions’. Pliny’s estimate of 2,437.5 miles (= 19,500 stades) as the distance between Thomna and Gaza results from the 65 *mansiones* multiplied per 300 stades, cf. (*HN* 12.64): caput eorum Thomna abest a Gaza, nostri litoris in Iudaea oppido, <XXIII> <XXXVII> D p., quod dividitur in mansiones camelorum LXV, ‘Their capital is Thomna, which is 1,487½ miles distant from the town of Gaza in Judaea on the Mediterranean coast; the journey is divided into 65 stages with halts for camels.’ (transl. by Rackham 1942) Cf. Strabo (from Eratosthenes) 16.4.4: ἔρχονται δὲ πρὸς αὐτοὺς ἐξ Αἰλάνων μὲν εἰς Μινναίαν ἐν ἑβδομήκοντα ἡμέραις, ‘They arrive there, from Aelana to the Minaean land, in seventy days.’

44 It should be noted that the *Peutinger Table* (seg. XI) has a *Patinae* (Paithana?) very close to Muziris.

45 The precise layout of the ancient road Barygaza–Paithana–Tagara is unknown. However, the longitude of Bharuch (72°59′50.20″E), Paithan (75°23′9.92″E) and Ter (76°8′31.50″E), combined with the circumstance that the Southward Road included long roadless, that is mountainous, tracts (cf. *supra* nt. 23), suggests that the Paithan–Ter leg (difference in longitude between the two ends: c.45′21.50″) was more north–south oriented than the Bharuch–Paithan leg (difference in longitude c.2°23′20″).

46 Such would be the distance implied by a thirty-day due-south voyage Barygaza–Tagara at 300 stades per day.

47 Ptol. *Geog.* 7.1.62: Βαρύγαζα ἐμπόριον ριγ° δ’ ιζ° γ’, ‘Barygaza, emporion 113° 15’, 17° 20’”; 82, 5–6: Τάγαρα ρη° ιθ° γ’, Βαίθανα βασιλείον Σιριπτολεμαίου ριζ° η° ζ’ ‘Tagara 118°, 19° 20’, Baithana, kingly dwelling of Siriptolemaios 117°, 18° 10’.”

48 *Periplus* 50: μετὰ δὲ Βαρύγαζαν εὐθέως ἢ συναφῆς ἤπειρος ἐκ τοῦ βορέου εἰς τὸν νότον παρεκτείνει διὸ καὶ Δαχιναβάδης καλεῖται ἡ χώρα δάχανος γὰρ καλεῖται ὁ νότος τῇ αὐτῶν γλώσσῃ, ‘Immediately beyond Barygaza the coast runs from north to south. Thus the region is called Dachinabadês, for the word for south in their language is *dachanos*’ (transl. by L. Casson).

49 Ptol. *Geog.* 7.1.8: Μουζίρις ἐμπόριον ριζ° ιδ° “Muziris, emporion 117°, 14°;” 62: Βαρύγαζα ἐμπόριον ριγ° δ’ ιζ° γ’, ‘Barygaza, emporion 113° 15’, 17° 20’.”

50 Ptol. *Geog.* 7.4.11.

51 Ptol. *Geog.* 7.1.95.

52 Müller (1855): 1.296: ‘Priores quattuor ex parte saltem item ad insulas orae adjacentes, non vero as *Lacca-diven* insulas, referendae esse videntur, quum in situ insularum indicando Ptolemaeus neglegentissimus esse soleat. Eodem pertinet quod Ptolemaeus IV, 7, 11 ex alio, ut videtur, fonte inter insulas quae *prokeintai tes Taprobanes* habet *Kantheran* et *Aigidion*, quae a nostris *Kaineton* et *Aigidion* vix diversae sunt’. Of course, the identification of the Kanthara Island with the Island of the Kainetai is not as straightforward as Müller assumes.

53 Ptol. *Geog.* 7.1.8.

54 *Periplus* 56: χελώνη ἢ τε Χρυσονητικὴ καὶ ἡ περὶ τὰς νήσους θηρευομένη τὰς προκειμένας αὐτῆς τῆς Λιμυρικῆς, ‘tortoise shell, both the kind from Chryse Island and the kind caught around the islands lying off Limyrike itself’ (transl. by L. Casson).

55 Ptol. *Geog.* 7.1.7–8. It may be wondered whether the *Periplus* ‘Island of the Kainetai is the same as the Island Peperine in Ptol. *Geog.* 7.1.95, located at 1150, 120 40’.

- 56 Plin. *HN* 6.104: inde vento hippalo navigant diebus XL ad primum emporium Indiae Muzirim—non expetendum propter vicinos piratas, qui optinent locum nomine Nitrias, ‘from there they sail with the Hippalus wind, reaching Muziris, the first emporion of India, in forty days—not a desirable port of call, on account of the neighbouring pirates, who occupy a place called Nitriae’ (transl. Rackham with modifications).
- 57 Hunter (1886): 4.197.
- 58 See, e.g., Figure 5.2.
- 59 Barbosa 162–163, Machado: ‘Passado este lugar de longo da costa está o monte Deli, na beira do mar, que é um monte muito alto e redondo, em terra baixa por onde todas as naus de mouros e gentios que pelo mar indio navegam, se regem, e dele fazem sua rota quando hão-de partir. Deste monte correm muitas águas de que as naus se provem, há nele muita lenha em que entra muita canela brava.’
- 60 Cf. e.g. Ames (2009): 69, nt. 6.
- 61 fol. 18r–18v, p. 71 Marques: ‘E ao domingo seguinte ouvemos vista do norte o qual avia muito que leixamos de ver, e hũa sesta feira que foram XVIII dias de Mayo vimos hũa terra alta a qual avia vinte e tres dias que nom viramos terra vindo sempre em estes dias com vento a popa que ao menos que podyamos andar em esta travessa seriam seiscentas legoas, e averia de nos aa terra ao tempo que a vimos oyto legoas, e aly lançaram o prumo e acharam quorenta e cinco braças.’

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6 Indian Ocean commerce in context

The economic and revenue significance of eastern trade in the ancient world

Raoul John McLaughlin

This chapter explains the Eastern Commercial Revenue Model, an evidence-based scheme for the Roman economy as presented in *Rome and the Distant East* (2010) and elaborated upon in *The Roman Empire and the Indian Ocean* (2014) and *The Roman Empire and the Silk Routes* (2016).¹ The model suggests that trade conducted through the Indian Ocean generated approximately a third of Roman revenues during the early imperial period. The impact of this model as a framework for recent studies is briefly reviewed in the conclusion.

The model was constructed by using ancient evidence and making quantitative deductions from source testimony and archaeological remains. It introduced and incorporated evidence for port facilities, naval technology, sailing schedules, trade networks, commodity exchanges, cultural contacts, diplomatic relations, and the use and consumption of foreign goods in ancient societies. This reconstruction of the Roman economy is therefore a major departure from established academic narratives that sought to marginalize eastern trade.²

Evidence for Roman finances

The following information exists for Roman revenues during the imperial period:³

- Funds offered by central and southern Iberia during Roman Civil War (49 BCE): 18 million sesterces.⁴
- Annual tribute from Chersonesos Kingdom in Crimea (first century BCE): 4.8 million sesterces.⁵
- Tribute from Greater Gaul (newly conquered in 50 BCE): 40 million sesterces.⁶
- Roman revenues before Pompey's Eastern Conquests (65 BCE): 200 million sesterces.
- Revenues from Greater Anatolia plus Syria (61 BCE): 140 million sesterces.⁷
- Possible revenues from Anatolia (Asia Minor): 60+ million sesterces.⁸
- Revenues from the main territories of Herod's Kingdom in Palestine (4 BCE): 22 million sesterces.⁹
- Revenues from Palestine including balsam (44 CE): 48 million sesterces.¹⁰

- Annual revenues from the Kingdom of Commagene in Anatolia (18–38 CE): 5 million sesterces.¹¹
- Annual tribute from the province of Asia (500 cities in western Anatolia) (125 CE): 28 million sesterces.¹²

This evidence indicates that most subject territories did not contribute large amounts to Roman State revenues.

The Romans imposed tribute on subject peoples as a symbol of submission and punished revolt by increased demands for money and materials.¹³ Tribute amounts were fixed by long-standing agreements, so this meant that the imperial regime did not derive greater revenues from a country that had become more prosperous under Roman rule. The Roman regime imposed a comparatively low rate tax of about one-fortieth (2.5 per cent) on goods crossing provincial boundaries, so internal trade did not raise large amounts of revenue. Gaul is often cited as an example of a Roman territory obtaining greater prosperity under imperial rule,¹⁴ but the provinces that comprised Gaul would have needed to export agricultural produce and other perishable goods worth 40 million sesterces in order to raise even 1 million sesterces for the Roman regime.

It seems that the Romans demanded only a comparatively moderate amount of tribute from most of its subject territories and only a small amount of central government tax was levied from ordinary individuals.¹⁵ The New Testament suggests that the Roman poll tax (*tributum capitis*) paid by adult males was 1 denarius, or a single day's labour.¹⁶ This meant that 1 million men might raise about 4 million sesterces in poll tax revenue and population increases would need to be very large to significantly increase Roman revenues. Property taxes also seem to have been comparatively low in most Roman provinces. Appian reports that Roman subjects in Syria had to pay an annual land tax (*tributum solis*) set at 1 per cent of their assessed wealth.¹⁷ As tribute levels were set by historic agreement, an increase in regional population or property wealth did not necessarily substantially increase Roman State revenues. Instead, an increase in regional agricultural prosperity or population would mean that smaller proportional contributions were required from each individual.¹⁸

Most Roman provinces did not produce or forward any significant amounts of revenue wealth to Rome and this meant that gold and silver mines were important to the Roman economy.¹⁹ Most of the government's military expenses on the European frontiers could met be by newly obtained precious metals minted as coin. The Greenland ice pollution record confirms that silver mining in the early imperial period was similar to the peak of Carthago Nova production (36 million sesterces).²⁰ Plus the Empire received at least 80 million sesterces from its Iberian gold mines (total: 116 million sesterces). Additional revenue came from European gold mines which produced up to 80 million sesterces of bullion per annum during periods of peak production in the first century CE.²¹

In the first century CE, the monetary cost of a Roman legion was about 11 million sesterces, including retirement bonuses for the veteran troops. As outlined in

The Roman Empire and the Indian Ocean, ‘Ancient Figures and Modern Estimates’, military costs can be presented as follows:²²

- 5,000 Legionaries paid 900 sesterces annually = 4.5 million.²³
- 5,000 Auxiliaries paid 750 sesterces annually = 3.75 million.²⁴
- 54 Centurions (each paid 13,500); 4 Centurions First Cohort, *Primi Ordines* (paid 27,000); Senior Centurion – *Primus Pilus* (54,000); 5 Tribunes (45,000); Legion Legate (61,000) = 1 million sesterces.²⁵
- Discharge bonuses (*praemia*) paid after 25 years’ service: c.120 legionaries per year granted 12,000 sesterces = 1.4 million plus 1.1 million sesterces bonus for auxiliaries.²⁶
- Plus additional cost of junior and auxiliary officers, cavalry pay (900 sesterces per horseman), purchase of cavalry horses (deposit cost: 500 sesterces) and pack animals.²⁷ Animal feed perhaps received through local taxes.

Roman land taxes would have been collected as coin value or as an equivalent quantity of agricultural product that could then be transferred to nearby garrisons, or sold on the open market. Tacitus mentions grain taxes in Roman Britain and Josephus describes how rebels in Judaea seized grain from ‘imperial granaries’ during the Jewish revolt of 66 CE.²⁸

Eight legions on the Rhine would have cost 88 million sesterces and a further 88 million sesterces was required for eight legions on the Danube frontier. Tribute worth 40 million sesterces was imposed on Greater Gaul, therefore the State needed to raise a potential 48 million sesterces to pay for the Rhine frontier. This could be in coin or resources such as materials, produce and land grants. The bullion total of 116 million sesterces was almost sufficient to pay for the Rhine-Danube Legions without having to redirect large amounts coinage away from the monetized Mediterranean.²⁹ Mining for precious metals added to this income including the discovery of gold in Dalmatia which added 70 million sesterces to Roman revenues during the reign of Nero.³⁰

The financial situation of the Empire is supported by surviving ancient evidence for Roman revenues.³¹ The total revenue of the Republican State in the mid-first century BCE was 340 million sesterces per annum. Plutarch reports that, ‘it was shown on written tablets that the new taxes Pompey added to the State came to 50 million denarii and the Republic now received revenues of 85 million denarii.’³² When Julius Caesar conquered Gaul, he imposed tribute on these newly subdued territories. Suetonius reports that, ‘when Caesar reduced the defeated parts of Gaul to the status of a province he imposed upon them a yearly tribute of 40 million sesterces.’³³ However, the greatest surge in imperial income came when the Emperor Augustus annexed Egypt, a realm that had produced revenues of 300 million sesterces for the Ptolemaic Kingdom. Strabo reports, ‘Cicero tells us about the revenues of Egypt in a certain speech stating that Auletes, who was the father of Cleopatra, received annual revenue of 12,500 talents.’³⁴ The total arrived at from these figures suggests that the Roman Empire received over 680 million sesterces from its conquered territories.³⁵

During the second century, the Romans also received up to 90 million sesterces from overland trade passing through the Syrian city of Palmyra that controlled the frontier route between Parthia and the Roman Empire.³⁶ This figure is suggested by an Aramaic inscription in Palmyrene Funerary Tower number 70 which gives the same import total of 360 million sesterces in three monetary units (denarii, staters and myriads).³⁷ Goods brought through Palmyra that were worth 360 million sesterces would have generated quarter-rate revenues worth 90 million sesterces for Roman tax collectors at Antioch and other Syrian cities.³⁸ Another Palmyrene caravan inscription confirms the existence of the quarter-rate customs tax collector at Antioch.³⁹

But it was Indian Ocean commerce that added the greatest total to Roman revenues. Taxes imposed on international trade passing through Egypt added a possible 270 million sesterces to Egyptian revenues already worth 300 million and would have raised the income of the Roman Empire to more than a thousand million sesterces per year.⁴⁰ The historian Josephus was a client of the Flavian Emperors and he confirms that Egypt did provide annual revenues greater than 570 million sesterces for the Roman State.⁴¹ This evidence supports the value of international commerce and the importance of eastern economies such as India and China in sustaining continued Roman prosperity.

Evidence for the scale of Indian Ocean trade

The plausibility of the Eastern Commercial Revenue Model relies on the fact that it places ancient evidence in context and suggests that many figures previously dismissed by academics as ‘dubious’ do in fact represent historical reality.⁴²

The geographer Strabo, an associate of the Roman governor of Egypt, provides evidence of the scale of eastern trade. While on a tour with the governor, Strabo reports that by the early Augustan era, 120 Roman ships were sailing to India per annum compared with fewer than 20 vessels in the Ptolemaic period.⁴³ This increase is credible given contemporary events, including major infrastructure developments at the main Red Sea ports. In 26 BCE, the Roman Governor Gaius Aelius Gallus oversaw the construction of 80 triremes and 130 troop-transports at Arsinoe for his planned conquest of the Arabian Peninsula.⁴⁴ As modern estimates for the construction for a large Roman cargo ship are approximately 300,000 sesterces,⁴⁵ a single Indian cargo valued at 7 million sesterces could probably finance the construction of 20 new vessels.

Evidence for the value of the cargoes returning from these distant trade ventures is given in the *Muziris Papyrus*, a legal contract stating prices assigned by government agents responsible for import tax. This document records the value of an incoming Indian cargo aboard a Roman trade ship called the ‘*Hermapollon*’ at almost 6.9 million sesterces after tax. The cargo list in the *Muziris Papyrus* is damaged, so the commodity type and volume of some items have to be deduced from other evidence, including quantitative information in the *Periplus* and price details provided by Pliny the Elder in his *Natural History*. One unnamed bulk commodity removed from the *Hermapollon*’s cargo hold was valued at 4,630,632

sesterces. The *Periplus of the Erythraean Sea* suggests that this commodity was pepper, since pepper was the main cargo carried aboard ships returning from southern India.⁴⁶ Pliny records that pepper sold at 16 sesterces per Roman pound, possibly using State price valuations determined in Rome at the *Horrea Piperataria* (Spice Warehouses) where the government held some of the eastern stocks it received as tax. This suggests that the *Hermapollon* was carrying 135 tons of pepper.⁴⁷

The *Periplus* reports that Roman ships returning from southern India carried ‘full loads because of the volume and quantity of pepper and malabathrum’.⁴⁸ Pliny records that pepper was one of the least expensive eastern imports with a value of 16 sesterces per pound and a 200-ton cargo of pepper would therefore have cost 6.4 million sesterces in Roman markets, confirming the value of imports as suggested by the *Muziris Papyrus*.⁴⁹ Juvenal describes how the merchant ‘who is shipping grain or pepper’ will ‘load his ship up to the gunwale with goods’ and ‘run the risk for the sake of a thousand talents (6 million sesterces)’.⁵⁰ Even in the *Satyricon*, Petronius has a character invest in Mediterranean ships that he suggests will carry cargoes worth 6 million sesterces.⁵¹

There is debate concerning the size of Roman merchant ships that sailed to India.⁵² The *Digest of Roman Law* describes Mediterranean ships that transported grain from Alexandria to Rome. The text refers to ship-owners who operated a single vessel with ‘a capacity of at least fifty thousand *modii* (350 tons), or several vessels, each with a capacity at least ten thousand *modii* (seventy tons)’.⁵³ An Egyptian papyrus provides a short register of nine ships arriving at Alexandria which belonged to a single businessman. The document records the tonnage of five ships at between 50 and 80 tons, a 230-ton vessel and an empty grain freighter from Ostia registered at 410 tons.⁵⁴ Another Egyptian papyrus records a ship-owner who owned eight vessels with an aggregate capacity of 1,300 tons (average 162 tons). Another businessman registered three ships that were able to carry a total of 500 tons (average 165 tons per ship).⁵⁵ This indicates the possible size of a vessel that could be constructed in Egypt for Red Sea voyages to Egypt.

As a comparison, Pliny reports that Indian vessels operating close to Sri Lanka could carry up to 150 tons of cargo, equivalent to 3,000 wine amphorae.⁵⁶ Philostratus suggests that Roman freighters operating in the Indian Ocean were larger than most other eastern vessels, but he could be describing Arab dhows when he writes, ‘the Egyptians build these ships on a scale whereby one of their vessels is equivalent in size to several of those used by the other races’.⁵⁷ Part of a pier excavated at Berenike had wide intervals for Roman merchant ships to dock. These spaces were able to accommodate vessels up to 120 feet long with a probable cargo capacity of up to 350 tons, although most vessels might have been smaller.⁵⁸ In 2014, a ship-frame was discovered at Berenike belonging to vessel estimated to have been mid-sized (165 tons). Alternatively, if the structure was a floor-frame the vessel might have been relatively large (up to 380 tons).⁵⁹ A significant proportion of this cargo potential might have been utilized for crew supplies and accommodation. The *Muziris Papyrus* suggests that the *Hermapollon* was a total cargo of at least 220 tons.⁶⁰

The import tax paid on the *Hermapollon*'s cargo of almost 9 million sesterces was 2.25 million sesterces, so commerce on this scale might have raised at least 270 million sesterces for the Roman State every year.⁶¹ This represents almost a third of the revenues that Rome would require to maintain its empire, sustain its prosperity and pay for the Legions.

The *Periplus Maris Erythraei* is a merchant handbook written by a Graeco-Roman businessman who was involved in voyages to India in about 50 CE.⁶² As well as listing commodities traded at eastern ports, the *Periplus* is also a maritime manual with information on sea routes, hazards, landmarks, ports and other safe anchorages.⁶³ The *Periplus* probably describes the Ptolemaic era when the author reports, 'men formerly used to sail in smaller vessels, following the curves of the bays.'⁶⁴ If these were 75-ton vessels, then the *Hermapollon* might have held almost three times the cargo (220 tons). Based on this comparison, a 75-ton Indian cargo might have been worth less than 3 million sesterces. It is therefore significant that Strabo records that less than twenty Greek ships sailed from Egypt to India per annum in the Ptolemaic era.⁶⁵ This suggests trade worth less than 60 million sesterces and imports less than 15 million sesterces after imposition of the quarter-rate *tetarte* import tax. Even if this figure is doubled by accepting that larger vessels may have been in use, the total value is not a significant amount compared with eastern trade in the Roman era.⁶⁶

A low figure for Ptolemaic-era eastern trade revenues is consistent with Duncan-Jones's reconstruction of Egyptian finances in the first century BCE/CE. Duncan-Jones calculates that the internal Egyptian economy and its Mediterranean trade would have produced revenues of about 259 million sesterces per annum.⁶⁷ This is about 40 million sesterces below Strabo's figure of 300 million sesterces for the revenues of the Ptolemaic State.⁶⁸ Ancient statements confirm the view that Ptolemaic-era trade operated on comparatively low levels. Tacitus describes how 'the consumption of edible luxuries reached substantial new levels in the century between the close of the *Actium* War and the struggle which placed Servius Galba on the throne' (31 BCE–69 CE).⁶⁹ Other eastern commodities imported during this era created fashions for popular new forms of jewellery, ornaments and clothing. Pliny confirms that, 'pearls came into common use in Rome after Alexandria came under our power' (30 BCE).⁷⁰

Based on long-term excavation and enquiry at the Red Sea ports, Professor Sidebotham believes that there was a substantial increase in trade activity at Berenike and Myos Hormos extending from the Claudian to Flavian periods (41–96) through to the reign of Trajan (98–117). Comparing activity from the Augustan era, representing perhaps 120 ships, he estimates that 150 vessels might have operated from the ports during this peak in commerce.⁷¹ This greater trade activity could also be attributed to an increase in the size of vessels sailing to India from 80 to 120 tons, or from 150 to 220 tons. Alternatively, the increase could represent expanded Roman trade contacts with East Africa or southern Arabia.⁷²

A second-century decline in activity at Berenike and Myos Hormos cannot be used as evidence for a decrease in the overall scale of eastern trade. This is because the Nile-Suez canal was restored during the reign of the Emperor Trajan (98–117 CE).⁷³

This repaired route allowed cargoes and passengers to sail directly from Alexandria to the main Red Sea harbours where they could board ocean-going vessels heading for India. Transport by barge canal was about one-sixth cheaper than overland haulage by camel caravan and many merchants and other travellers used this route to bypass the hardships of the desert.⁷⁴ Lucian describes how a student in Alexandria took a ship along the Nile to the port of Arsinoe at the head of the Suez Gulf where he was persuaded to board a vessel and take a sea-passage to India.⁷⁵ Trade activity was redirected through this route leading to a decline in the ports of Myos Hormos and Berenike.

Archaeological activity at Indian sites cannot verify the scale of trade over time as Roman merchants bypassed intermediate ports to reach more distant markets.⁷⁶ The *Periplus* confirms that in 50 CE most Roman ships ended their trade voyages in south-west India and trade was concentrated at certain ports.⁷⁷ By the time Ptolemy composed his *Geography* in 150 BCE, Roman vessels were sailing around Sri Lanka and reaching trade centres on the far side of the Bay of Bengal.⁷⁸ As an example, the *Periplus* reports that Roman goods exported to south-west India were loaded aboard Tamil ships and taken to a trade-station on the east coast called Poduke (Arikamedu). The *Periplus* describes Poduke and nearby centres as 'home ports for the local craft' that trafficked 'Roman cash and other products' from the Malabar seaboard.⁷⁹ Hundreds of Roman pottery shards have been found at Arikamedu and about half of these finds are from Italian wine vessels.⁸⁰ Following the arrival of a Sinhalese Embassy to Rome in about 52 CE with reports that Sri Lanka could be circumvented, Roman merchant ships could bypass Tamil intermediate ports to reach more distant consumer markets.⁸¹

The quantity of particular archaeological finds do not necessarily indicate an overall decline in commerce. Many of the amphorae fragments found at Arikamedu have black volcanic grit in their ceramic composition, indicating that they were fired with clay from Campania in central Italy. When the volcano Vesuvius erupted in August 79 CE, it damaged the wine industry in Campania and this affected Roman exports to India.⁸² This crisis probably forced many Italian businessmen to increase their reliance on bullion or other products for trade exchanges.

Roman coin finds in India do not indicate the scale of trade developments at any particular time because bullion was used as an alternative.⁸³ The Tamils preferred certain coin issues that had been minted by particular Emperors (mostly Augustus and Tiberius). As Roman merchants secured better deals with these coins, special efforts were made to accumulate particular coin types for export. A similar situation was occurring in northern Europe and Tacitus describes how German tribes living far from the frontier liked to receive 'trusted' Roman coin types in trade deals. They had a preference for 'the old and well-known money, preferring the coins that show a two-horse chariot'.⁸⁴ Writing in the sixth century, the Greek traveller Cosmas explains how Roman coins were chosen for eastern export on the basis of their design and quality, with 'finely shaped pieces formed from bright metal being specially selected for export'.⁸⁵

A coin hoard containing a particular issue of a coin might not accurately indicate the date of export.⁸⁶ Almost all the silver denarii found in India are coins minted

before the currency reforms instigated by the Emperor Nero in 64 CE when base metal was introduced into new issues.⁸⁷ The reforms probably had little immediate impact on eastern trade because there were millions of pre-reform denarii still in circulation. Certain denarii found in southern India show evidence of heavy wear consistent with old coins that had circulated within the imperial economy for several decades. These were probably exported in the period between 70 CE and 100 CE.⁸⁸ For example, a heavily worn Augustan denarius from the Budinatham hoard bore a countermark of the Emperor Vespasian (69–79 CE).⁸⁹ Although the currency reforms introduced by Nero reduced the weight of newly minted gold aurei, it did not change the purity of the metal. This meant that newer aurei were still valuable as bullion in foreign markets, but merchants preferred to export older coins because of their higher gold content (8 grams compared to only 7.3 grams). When the heavier Julio-Claudian aurei disappeared from circulation in the second century CE, Roman merchants switched to the newer issues, or simply used bullion.⁹⁰ Most of the Roman coin hoards found in India probably represent Indian activity, as Dio Chrysostom comments, ‘those who go to India travel there in pursuit of trade and they mingle mostly with the people of the coast.’⁹¹

The ratio of gold to silver in Roman coinage also altered over time.⁹² The gold aurei was about half the size and weight of a silver denarius and this meant that 25 denarii were equal to 1 aureus. According to weight, Roman currency valued silver to gold at a ratio of about 12:1. Indian kingdoms placed a relatively high value on silver and Saka inscriptions suggest a similar 10:1 (silver-to-gold) ratio in northern India.⁹³ In 64 CE, Nero reformed Roman currency by introducing a small quantity of base-metal into newly issued silver denarii and by slightly reducing the size of freshly minted gold aurei. These measures were probably introduced to increase government funds, but the new currency also established a lower silver-to-gold ratio for Roman currency (11:1).⁹⁴

Evidence from Egypt suggests that soon after Trajan’s Dacian conquests, gold became so plentiful that its price in export markets such as Koptos was temporarily reduced to a ratio of almost 1:8.⁹⁵ An Egyptian papyrus dated to 110 CE reports: ‘gold bullion which was selling at 15 (drachma) has fallen in value to 11 (drachma).’⁹⁶ Trajan reformed Roman currency by reducing the silver content of the denarius until it represented a silver-to-gold value that was similar to price ratios in India (1:10). One consequence of this action was that new Roman coinage lost its exchange-rate advantage in the money markets of northern India. This meant that many Roman traders switched from coin to bullion, especially when supplies of older coinage became insufficient to meet export demands.⁹⁷ Pausanias reports that ‘the sailors on ships that go to India say that the Indians will only give produce in exchange for a Greek [Mediterranean] cargo,’ and confirms, ‘these Indians have an enormous quantity of their own gold and bronze coins, so they do not appreciate Roman currency.’⁹⁸ Given these complex economic circumstances, the composition of coin finds in India cannot suggest a definite decline in commerce.

During the imperial period, the Roman regime was aware that its finances were heavily reliant on international trade. Pliny the Elder served in the advisory council of the Emperor Vespasian and was well placed to receive information on trade

revenues; he claimed that 100 million sesterces of bullion were exported from the Roman Empire every year to pay for products from Arabia, India, and China.⁹⁹ He reports: ‘By the smallest computation, India, the *Seres* (Chinese) and the Arabian Peninsula take 100 million sesterces from our Empire every year – this is what our women and luxuries cost us.’¹⁰⁰ Regarding maritime trade with India he writes: ‘It is an important matter, since every year India drains more than 50 million sesterces from our Empire and returns goods which are sold among us at 100 times their cost.’¹⁰¹

An export figure of 100 million sesterces represented about one-ninth of the finances needed to fund the State expenses of the entire Roman Empire for a year (900 million sesterces).¹⁰² This situation was allowed to continue because eastern commerce also created highly lucrative revenues for the imperial government. Pliny’s figure of 50 million sesterces probably refers to bullion exports from Egypt to India. This interpretation is based on ship sizes, commodity values, coin hoard evidence, the context of ancient statements and Roman economic attitudes expressed in the primary sources.¹⁰³

The Kottayam hoard, found in a sand-dune on the Malabar Coast in southern India, consisted of a brass bowl containing 8,000 gold aurei worth 800,000 sesterces in imperial money.¹⁰⁴ If this were a typical coin consignment, then 60 ships could have exported 50 million sesterces of bullion per annum. The figure suggests that half the Roman fleet sailed directly to southern India where bullion dominated trade exchanges.

Based on contextual evidence, an outbound Roman cargo destined for southern India might have been worth between 90–100,000 sesterces. This is consistent with the *Periplus* recording coin and bullion as the main export to southern India, the Kottayam Hoard, Chinese statements in the *Houhanshu* recording tenfold returns on Indo-Roman trade, the value of the *Hermapollon*’s cargo at almost 9 million sesterces (not including pearls and precious stones), Strabo’s information on fleet size at 120 ships and Egyptian revenue amounts of over 570 million sesterces suggested by Josephus. The evidence creates a consistent impression of trade as follows:

- Total value of Roman exports from Egypt to India: over 100 million sesterces.
- Total value of returning Indian cargoes: over 1,000 million sesterces.
- Indian Ocean trade generating customs revenues greater than 270 million sesterces.
- Total Egyptian revenues greater than 570 million sesterces.¹⁰⁵

The 50 million sesterces export figure asserted by Pliny therefore represents one aspect of Roman exports, which is probably bullion destined mainly for southern India. This is consistent with details in the *Periplus* suggesting that coin and bullion was less significant in Roman trade with northern India.¹⁰⁶ The Berenike customs receipts recording *marsippia* (coin-bags) confirm that coinage was being delivered to Roman ships pre-70 CE.¹⁰⁷ Three receipts record coin consignments consisting of between 73 and 120 coin pouches (14,600–24,000 denarii). This could represent

about 58,000–96,000 sesterces worth of silver bullion. This is consistent with a receipt from the *Nicanor Archive* which records that three talents-weight of silver bullion was sent to Berenike in 62 CE.¹⁰⁸ This quantity of silver bullion was equivalent to about 25,000 denarii and would have been worth over 100,000 sesterces. Perhaps these silver consignments were bound for southern Arabia or the India ports.¹⁰⁹ The *Periplus* records that in the Gujurat port of Barygaza, ‘Roman money, gold and silver commands an exchange at some profit against the local currency.’¹¹⁰

The view that Pliny is referring to bullion is supported by contemporary Roman attitudes to wealth, estate management and State spending.¹¹¹ According to Tacitus, the Emperor Tiberius referred to the loss of ‘our wealth’ (*pecuniae nostrae*) when he addressed the Senate concerning the expense of eastern commodities.¹¹² Pliny refers to cargo wealth seized from a Roman ship reaching Sri Lanka in terms of coined money (*denarii in captiva pecunia*).¹¹³ Many members of the governing class came from the traditional landholding elite who were responsible for managing large family estates worth millions of sesterces. These familial obligations gave Roman officials a model for understanding the economic operation of their Empire and assessing trade beyond the frontiers. Among the Roman governing class, there was a strong tradition that powerful estates should aim for self-sufficiency, but within this context it was acceptable for an estate to export its surplus produce for market sale, or trade.¹¹⁴ Conversely, the expenditure of large sums of money, or bullion, to acquire outside resources was considered to be an ‘inefficient’ and detrimental practice. Cato the Elder advised, ‘sell your oil if the price is satisfactory and sell your surplus wine and grain . . . but the master of a household should be a seller, not a buyer.’¹¹⁵ Roman dealings with the distant East contravened this practice with the mass export of cash and bullion. Eastern trade was therefore forcing the Empire to operate like a ‘badly managed estate’ and this explains why Pliny probably offers figures for bullion exports when he quantifies this commerce.¹¹⁶

Eastern trade was also contravening Roman ideas about ‘proper’ tribute relations between the Empire and ‘outsiders’. It was expected that foreign people should pay tribute to Rome as the dominant power. Yet eastern commerce created a system whereby Romans sent wealth out of their domain to acquire exotic goods from overseas countries.¹¹⁷ This commerce enriched foreign nations at the expense of Roman territories and that was why Dio Chrysostom condemned, ‘Celts, Indians, Iberians (Caucasus), Arabs and Babylonians, who all extract tribute from us’. Roman wealth was being taken abroad by merchants, ‘who ensure that silver is willingly sent out over long roads and across a vast expanse of sea to distant people who cannot easily even set foot upon our territory’.¹¹⁸

The evidence suggests that Roman authorities could have known the value of bullion exports from Egypt to India.¹¹⁹ Eastern voyages were seasonal so Pliny’s figures could have been estimated from the quarter-rate customs tax collected during the months shortly before departure. In this era, all exports passed through the Koptos custom station and private businesses bid for the right to collect the taxes. Under Vespasian, the Pretorian Prefect T. Julius Alexander was the son of a man who had purchased the right to collect the quarter-rate import tax in Egypt.¹²⁰

Alternatively, Pliny's figure could be based on a typical bullion/coin consignment multiplied by the usual number of departing ships. Tacitus confirms that in 16 CE the Emperor Tiberius addressed the Senate concerned, 'for the sake of jewels our wealth is transferred to foreign or hostile countries.'¹²¹ In about 52 CE, a Roman tax collector working for an Italian business family accompanied a Sinhalese embassy to Rome for reception and questioning by the Emperor Claudius. According to Pliny, the Sinhalese were particularly impressed by the quality of Roman currency.¹²² Information on trade values was therefore available to those close to the centre of imperial power and was a legitimate concern.¹²³

Verification of these figures also comes from the Chinese *Hou Hanshu* (*Later Han Histories*) that records how Roman subjects reached China by ship in 162 CE.¹²⁴ These travellers would probably have been the source for the Chinese statement that 'the Romans conduct a sea trade with Parthia (*Anxi*) and India (*Tianzhu*) and their return gain is ten to one.'¹²⁵ This tenfold price increase between Egypt and India is confirmed by accounts of trade from the sixteenth century.¹²⁶ A bullion consignment such as the Kottayam hoard worth 800,000 sesterces would therefore have been exchanged for an Indian cargo worth 8 million sesterces.¹²⁷

Pliny also suggests a hundredfold increase between the value of certain goods in Indian markets and their retail price in Rome and this is consistent with other evidence. *Diocletian's Price Edict* indicates that purple-dyed silk was priced at more than ten times the value of plain white silk. A tenfold mark-up between India and Egypt followed by a tenfold increase after manufacture would result in a hundredfold price difference.¹²⁸ An ancient Chinese debate over Han policy conducted in the Imperial Court survives as the *Discourse on Salt and Iron*. A State minister described how the Chinese purchased pearls and ivory from territories more than 3,000 miles from their frontiers and 'calculating the costs in material and capital, it will be found that one article of foreign import costs a price a hundred times its value.'¹²⁹ The *Liang-shu* records how a Roman merchant named 'Lun' reached southern China by ship in 230 CE and offered the Emperor Sun Quan, 'details about his native land and its customs – Lun prepared a report in reply'.¹³⁰ This could be the source for the seventh-century *Chin-shu* which mentions third-century contacts and amends earlier information on Rome to report that 'India has trade with them by sea; its profit is hundred-fold' (the retail mark-up replacing the tenfold import figure).¹³¹

The Eastern Commercial Revenue Model as an alternative solution for the Roman economy

A starting point for contextualizing the economic evidence from trade and its repercussions has existed since 2006. However, after the Eastern Commercial Revenue Model was introduced in *Roman Trade with India and the Distant East* (PhD, Belfast, 2006), an academic review expressed several concerns. These were:

- 'The tower of quantitative guesswork based on a handful of dubious figures in ancient literary sources will collapse at the first critical breeze.'

- ‘The thesis that the *tetarte* on the Egypt route alone made up a third of imperial revenues is quite implausible.’¹³²

In spite of this, one of the strengths of the model is that it can be presented without reference to previous academic controversies. *Rome and the Distant East* (Bloomsbury, 2010) and subsequent Pen & Sword publications have avoided academic debate and focused on the ancient evidence. *The Roman Empire and the Indian Ocean* (Barnsley, 2014) presented further research and contained a more detailed evidence-based version of the Eastern Commercial Revenue Model. It was promoted with the statement, ‘The ancient evidence suggests that international commerce supplied Roman government with up to a third of the revenues that sustained their empire.’¹³³

Subsequent impact of the Eastern Commercial Revenue Model (2010–17)

In 2014, Cambridge University published *The Cambridge Companion to the Roman Economy* which included contributions from Professor Andrew Wilson, the head of the Oxford Roman Economy Project. In a ‘Forum on Trade’, Wilson acknowledged

with 100 such cargoes a year (a conservative estimate, as Strabo a century before speaks of 120 ships a year leaving Myos Hormos for India), the customs revenue on the import trade alone through the Red Sea would have amounted to perhaps between a quarter and a third of the entire military budget for the Empire.¹³⁴

This recognition of an Eastern Commercial Revenue Model was repeated by Wilson in *Across the Ocean: Nine Essays on Indo-Mediterranean Trade* (Brill, 2015). Wilson explains, ‘It looks as if the total State revenue for the Empire may have been significantly underestimated by not taking due account of the revenues from trade, especially Indo-Mediterranean trade.’¹³⁵

In 2017, *Trade, Commerce, and the State in the Roman World* was published by Oxford University Press. In the Introduction, ‘Trade Commerce and the State’, the significance of eastern trade was reconsidered by Professors Andrew Wilson and Alan Bowman (also of the Oxford Roman Economy Project). They believe it is ‘very possible that something like one-third of the State’s military budget, estimated by Duncan-Jones at 643–704 million sesterii, could have been met from the customs revenues on the Red Sea trade alone.’¹³⁶

These conclusions are well-established in my existing research publications and I believe that they are significant enough to provide a framework to explain the economic function of the Roman Empire. To reiterate, the economic framework as explained in my PhD *Roman Trade with India and the Distant East* (2006), Roman exports to the East were subject to a high export tax (25%) and Roman exports of wealth worth 100 million sesterces would generate revenues worth

25 million sesterces per annum.¹³⁷ Regarding imports (*tetarte*), the government removed goods worth c.2.3 million sesterces from a total cargo worth c.9.2 million sesterces.¹³⁸ This suggests that the State seized possession of total cargo or taxes worth perhaps 276 million sesterces per annum (2.3 million sesterces x 120 ships).¹³⁹ Also, if subject to a *portoria* rate of one-fortieth, Indian imports worth 828 million sesterces would produce revenues of 21 million sesterces.¹⁴⁰ Consequently, with the assistance of local garrisons, a relatively small number of State officials stationed in Egypt could bring in a third of the Empire's total revenues.¹⁴¹

In *Rome and the Distant East* (2010), I suggested that in addition to export taxes worth over 25 million sesterces, returning Eastern imports worth over 1,080 million sesterces would have raised a further 270 million sesterces for the State. In total, the eastern frontier taxes of Egypt would therefore have generated over 300 million sesterces per annum. Eastern goods exported from Alexandria into the Mediterranean were subject to further customs taxes called *portoria*, which were generally set at the comparatively low rate of about one-fortieth value. This tax would have added tens of millions to Roman revenues received from Egypt.¹⁴² Consequently, a third of the imperial finances were funded by the tax profits of eastern trade. Apart from the Egyptian revenues, there was no large-scale transfer of other provincial taxes to the Roman capital.¹⁴³

Further research confirmed Roman exports from Egypt to India, including goods and bullion, were valued at more than 100 million sesterces and produced more than 25 million sesterces of revenue. Han texts indicate a tenfold price difference between Roman exports to India (100 million sesterces) and Indian imports (1,000 million sesterces). A quarter-rate *tetarte* tax on Indian imports worth 1,000 million sesterces would therefore have raised annual revenues worth 250 million sesterces for the Roman regime. Furthermore, in Alexandria, a single Mediterranean *portoria* tax (one-fortieth) on goods worth 1,000 million sesterces would have produced additional revenues worth perhaps 25 million sesterces per annum.¹⁴⁴

My additional research introduced evidence from other frontier regions. This reiterated that Indian imports into Egypt were worth over a billion sesterces per annum and by the first century CE, Rome was receiving more than 250 million sesterces from the quarter-rate custom tax it imposed on its Red Sea frontiers. It also suggested that the Empire received high-level income from taxing eastern goods entering Roman Syria by way of the Persian Gulf and the Parthian caravan routes that crossed Iran. An inscription from the frontier city of Palmyra confirms that Rome must have received revenues of a least 90 million sesterces from this caravan traffic. To place this figure in context, it is accepted that Caesar imposed tribute worth 40 million sesterces on his Gallic conquests, so the taxes that Rome collected from international trade could surpass the revenues of entire subject countries. Every year Rome required up to a billion sesterces to finance its Empire and the ancient evidence suggests that a third of this amount came from taxing the eastern commerce conducted by way of the Indian Ocean and Iran.¹⁴⁵

In conclusion, ancient sources and archaeological finds suggest that international commerce supplied the Roman government with up to a third of the revenues that sustained their Empire.¹⁴⁶ Therefore, taking this into consideration, a detailed

evidence-based and quantitative reconstruction of the Roman economy and its historical development is achievable. Future research on the Roman economy should therefore include the consequences of the quarter-rate taxation of imports through Egypt by way of the Indian Ocean trade as outlined above in the Eastern Commercial Revenue Model.

Notes

- 1 For an overview of the Eastern Commercial Revenue Model see McLaughlin (2014): chapters 1–3 plus appendices.
- 2 For scholars who have marginalized the significance of the eastern trade see McLaughlin (forthcoming) ‘Reconstructing the Roman Economy: The Views of Scholars on Eastern Trade and the impact of Eastern Commercial Revenue Model’.
- 3 McLaughlin (2014): 4.
- 4 Caesar *BC* 3.4.
- 5 Strab. 7.4.6.
- 6 Suet. *Iul.* 25.
- 7 Plut. *Vit. Pomp.* 45.
- 8 Revenues of the Roman province of Asia (28 million sesterces). Greater Anatolia perhaps double this figure based on territorial size and tribute figures from the fifth-century Persian Empire (Ionia: 520 Attic talents; Lydia: 650 talents; Pyrgia-Cappadocia: 468 talents; Cilicia: 468 talents). Hdt. 3.90.
- 9 Ethnarchy of Archelaus; Tetrarchies of Antipas and Philip (600; 200; 100 talents). Joseph. *AJ* 17.11.4.
- 10 Ibid. 19.8.2.
- 11 Suet. *Calig.* 16 (100 million sesterces over twenty years).
- 12 Philostr. *VS* 548.
- 13 McLaughlin (2016): 202.
- 14 Hopkins (1980): 116.
- 15 McLaughlin (2016): 202.
- 16 New Testament, Matthew 20:2.
- 17 App. *Syr.* 50.
- 18 McLaughlin (2016): 202–203.
- 19 McLaughlin (2014): 13–14.
- 20 Plin. *HN* 33.21. See graphs in Hong et al. (1994): 1841–1843.
- 21 Plin. *HN* 33.21.
- 22 McLaughlin (2014): ‘Ancient Figures and Modern Estimates’.
- 23 Full strength Legion: 5,500 legionaries. Campbell (1984): 162–163. Pay deductions and understrength units in Campbell (1994): 84.
- 24 Tac. *Ann.* 4.5.
- 25 Herz (2010): 308–311.
- 26 Tac. *Ann.* 1.17 (complaints about land-grants in place of cash bonuses). *I.L.S.* 2302; *C.I.L.* 3.6580 (discharge numbers).
- 27 *Roman Military Records on Papyrus*, 83 (deposit price for horse).
- 28 Tac. *Agr.* 19; Joseph. *Vit.* 13. McLaughlin (2016): 202–203.
- 29 McLaughlin (2014): 13–14.
- 30 Plin. *HN* 33.21.
- 31 McLaughlin (2014): 1–17.
- 32 Plut. *Vit. Pomp.* 45.
- 33 Suet. *Iul.* 25.
- 34 Strab. 17.1.13.
- 35 McLaughlin (2014): 19–21.

- 36 McLaughlin (2016): xix.
- 37 Aramaic inscription in Funerary Tower number 70 on the Umm Belqis.
- 38 McLaughlin (2016): 204.
- 39 *Inv.* 10.29 (AD 161) McLaughlin (2010): 102.
- 40 Imports worth 1,080 million sesterces subject to *tetarte* (one-quarter) and *portoria* (one-fortieth) = 270 million and 27 million = 297 million sesterces revenue. McLaughlin (2014): 19.
- 41 Joseph. *AJ* 17.11.4; Joseph. *BJ* 2.16.4.
- 42 For scholars who have marginalized the significance of the eastern trade see McLaughlin, (forthcoming) 'Reconstructing the Roman Economy: The Views of Scholars on Eastern Trade and the impact of Eastern Commercial Revenue Model'.
- 43 Strab. 2.5.12. McLaughlin (2014): 32, 110.
- 44 Strab. 16.4.23. McLaughlin (2014): 78.
- 45 Hopkins (1983): 101.
- 46 *Periplus* 56.
- 47 *Hermapollon* consignment: 135 tons valued at 4,630,632 sesterces = Pliny's price for pepper (16 sesterces per pound). McLaughlin (2014): 192–194.
- 48 *Periplus* 56. McLaughlin (2014): 93.
- 49 Plin. *HN* 12.14.
- 50 Juv. 14.256–302.
- 51 Petron. *Sat.* 76. McLaughlin (2014): 104.
- 52 De Romanis (2015): 127–50. Morelli (2011): 199–233.
- 53 Justinian, *Digest*, 50.5.3. McLaughlin (2014): 23–24.
- 54 *Fayyum Papyrus Bingen*, 77. McLaughlin (2014): 24.
- 55 *Oxyrhynchus Papyri*, 10.1259; 17.2125 (third century AD). McLaughlin (2014): 105.
- 56 Plin. *HN* 6.24. McLaughlin (2014): 196.
- 57 Philostr. *VA* 3.35. McLaughlin (2014): 195–196.
- 58 Sidebotham (2011): 195.
- 59 Kotarba-Morley (2017): 193–194.
- 60 McLaughlin (2014): 89–91. P. Vindob. G. 40822. Cargo = pepper (135 tons), malabathrum (83.9 tons), nard (1.3–3.4 tons), ivory (4.8 tons) and turtle-shell (2.3 tons).
- 61 McLaughlin (2014): 94.
- 62 McLaughlin 110–112.
- 63 McLaughlin (2010) 7–9.
- 64 *Periplus* 57.
- 65 Strab. 17.1.13. McLaughlin (2014): 77.
- 66 McLaughlin (2014): 76–82; (2010): 23–29.
- 67 Duncan-Jones (1994): 255.
- 68 Strab. 17.1.13.
- 69 Tac. *Ann.* 3.55.
- 70 Plin. *HN* 9.59. McLaughlin (2014): 25.
- 71 Sidebotham (2011): 218.
- 72 McLaughlin (2014): chapters 9–15.
- 73 Ptol. *Geog.* 4.5. Sidebotham (2011): 181. McLaughlin (2010): 33; (2014): 86–87.
- 74 Greene (1983): 40.
- 75 Lucian *Alex.* 44.
- 76 McLaughlin (2014): 86–87.
- 77 *Periplus* 51, 59. McLaughlin (2014): 194–195.
- 78 McLaughlin (2014): 196–200.
- 79 *Periplus* 60. McLaughlin (2014): 200–202.
- 80 McLaughlin (2014): 187–188.
- 81 McLaughlin (2014): 196–200; (2017): 1–41.
- 82 Williams (2004): 441–450; McLaughlin (2014): 187–188.
- 83 McLaughlin (2014): 187–192.

- 84 Tac. *Germ.* 1.5.
- 85 Cosmas Indicopleustes, *Christian Topography*, 11.441.
- 86 McLaughlin (2014): 187–192.
- 87 Tchernia (1997): 264–265.
- 88 MacDowall (1990): 49–73.
- 89 Tchernia (1997): 265–266.
- 90 For a full review of issues and evidence see McLaughlin (2014): 187–192.
- 91 Dio Chrys. *Or.* 35.22.
- 92 McLaughlin (2014): 187–192.
- 93 *Epigraphia Indica*, 8 (Nasik Caves); MacDowall (1991): 151–152.
- 94 McLaughlin (2014): 187–192.
- 95 McLaughlin (2016): 88.
- 96 *Papyrus Baden*, 37.
- 97 McLaughlin (2016): 88.
- 98 Paus. 3.12.4.
- 99 McLaughlin (2014): 190.
- 100 Plin. *HN* 12.41.
- 101 McLaughlin 6.26.
- 102 Hopkins (2002): 200; 208.
- 103 For further information see full discussions in McLaughlin (2010), (2014), and (2016).
- 104 Turner (1989): 8–9; 62–63. McLaughlin (2010): 161; (2014): 188–189.
- 105 Summarized in McLaughlin (2014): 226–267.
- 106 See overview McLaughlin 2014 chapters 12–14.
- 107 McLaughlin 2014 84–86.
- 108 *Ostraka Petrie*, 290 (22 July 62 CE).
- 109 McLaughlin (2014): 84–86.
- 110 *Periplus* 49.
- 111 McLaughlin (2014): 221–222.
- 112 Tac. *Ann.* 3.53.
- 113 Plin. *HN* 6.24.
- 114 Mattern (1999): 123–126.
- 115 Cato *Agr.* 2 (160 BCE).
- 116 McLaughlin (2014): 221–222.
- 117 Discussed in detail, *ibid*.
- 118 Dio Chrys. *On Wealth*, 79.5.
- 119 Discussed in detail in McLaughlin (2014), ‘Knowledge of Trade’: 2–5.
- 120 McLaughlin (2014): 4.
- 121 Tac. *Ann.* 3.53.
- 122 Plin. *HN* 12.41; McLaughlin (2017): 1–41.
- 123 McLaughlin (2014): 2–5.
- 124 McLaughlin (2014): 207–210; (2016): 192–196.
- 125 *Hou Hanshu* 88.12.
- 126 Braudel (1992): 405.
- 127 McLaughlin (2014): 188–189.
- 128 Plin. *HN* 6.26. *Price Edict*, 23.1.1; 24.1.1. McLaughlin (2014): 189.
- 129 *Discourse on Salt and Iron*, 2.15.d.
- 130 McLaughlin (2016): 198.
- 131 *Chin-shu*, 97.16.
- 132 Reviewer, Oxford University Press, 2007.
- 133 McLaughlin (2014): inside cover.
- 134 Wilson (2014): 290.
- 135 Wilson (2015): 24.
- 136 Bowman and Wilson (2017): 14–15.

- 137 McLaughlin (2006): 91–92.
- 138 See above for Pliny, 200-ton cargo of pepper = 6.4 million sesterces. Juvenal, merchant shipping pepper = 6 million sesterces. Petronius cargo = 6 million sesterces. Compare with *Hermapollon* cargo after tax deduction = 6.9 million sesterces.
- 139 McLaughlin (2006): 93.
- 140 McLaughlin (2006) 91–92. Cargo value of *Hermapollon* after quarter-rate import tax deduction by the State was 6.9 million sesterces x 120 ships = 828 million sesterces.
- 141 McLaughlin (2006) 155.
- 142 McLaughlin (2010): 164.
- 143 McLaughlin (2010) 168.
- 144 McLaughlin (2014): 19.
- 145 McLaughlin (2016: xix).
- 146 McLaughlin (2014): inside cover.

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7 Erythraean pearls in the Roman world

Features and aspects of luxury consumption (late second century BCE–second century CE)

Pierre Schneider

Introduction

The excavations recently conducted at Berenike, Quseir al-Qadim, Adulis and elsewhere – some still in progress – and the publication of the so-called ‘Muziris Papyrus’ – which triggered several important commentaries – represents significant breakthroughs in the study of the connections between Mediterranean and Indian Ocean societies. As Matthew Cobb puts it, this shift in research and interest caused the ‘Finley-esque “primitivist” view’ to be reconsidered. No scholars, or very few, would now ‘marginalise the significance of long-distance exchange (asserting that markets were fragmented and weak, and that goods traded over long-distances were superfluous luxuries consumed primarily by a narrow set of elites).’¹ As a consequence, the history of eastern long-distance exchanges is gradually penetrating the field of ancient economic history. For instance, Neville Morley, who authored a chapter in the recently published *Cambridge Economic History of the Greco-Roman World*, writes:

To describe this in terms of a distinction between ‘luxuries’ and ‘staples’ as objects of trade is, although conventional, generally unhelpful, carrying a great deal of baggage from the moralizing tradition: virtually any good might be defined as a ‘luxury’ (even grain, in certain circumstances: fine bread wheats, for example), while ancient historians tend to use the term unthinkingly as a synonym for ‘economically insignificant.’ We certainly cannot assume that the expansion of the trade in spices, incense, and other goods from Arabia and India during this period was devoted purely to the needs of the wealthy elite, while the scale of finance involved shows that this was scarcely an insignificant activity even if the number of individuals directly involved was relatively small.²

Morley mentions two facts that are beautifully documented by the ‘Muziris Papyrus’, namely the considerable quantity of goods imported from African and Asian countries, and the important volume of finance involved in this trade. Both, as he rightly says, are inconsistent with the idea that consumption was restricted to a tiny fraction of the Roman society. Morley goes on to say that a ‘study of the

changes in scale and location of demand in this period' is a key question. I certainly would not raise any objection to this statement, and agree that changes in habits of consumption occurred in many regions, 'which created a significant demand for goods that could not (at least for the moment) be produced locally, or which were desirable precisely because they were not produced locally.'³ To illustrate his point, however, Morley picks two examples: the growing demand for Italian wine in Gaul, and the 'changing tastes in fine pottery' – also in Gaul. By choosing goods that are documented by archaeological remains, Morley indirectly emphasises the fact that the consumption of eastern commodities – spices, aromatics, gemstones, silk etc. – is dramatically elusive, due to the lack of both written and archaeological evidence. This chapter, focusing on the case of Indian Ocean – or Erythraean – pearls, aims to show that such a study is not completely out of reach. This is an attempt to prove it. A diachronic reconstruction of the Romans' consumption from its Hellenistic origins to the late second century CE will be proposed in the first part. In the second part, I will turn to a thematic approach and briefly explore some social aspects and consequence of Rome's appetite for pearls.

From the Indian Ocean to the Mediterranean: a tentative history of Roman consumption

The Hellenistic roots of Roman consumption (from Alexander the Great to the late second century BCE)

In light of the complete lack of pre-Hellenistic evidence, one can say with certainty that Indian Ocean pearls were unknown to the Mediterranean world before Alexander the Great's campaign in Asia. The word *μαργαρίτης* is totally absent from surviving Greek texts and there is no hint to any precious item whose description would bring to mind a pearl. Similarly, no archaeological artefact has been unearthed that would attest to the use of pearls in the pre-Hellenistic Greek world. The real turning point was to come with the time of Graeco-Macedonian penetration into inner Asia and India. There is little doubt that the Graeco-Macedonians saw, observed and touched pearls on many occasions: pearls – and all kinds of gemstones – probably adorned various objects, not to speak of jewellery and other ornaments worn by women and men.⁴ Be that as it may, a set of documents makes it clear that pearls were first described during the last years of Alexander's campaign (325–324 BCE). Most importantly, the name of Iranian origin transcribed *μαργαρίτης* enters the Greek lexicon during these years. For instance, Nearchus, who took Alexander's fleet into the Arab-Persian Gulf through the Strait of Hormuz (autumn 325–early 324 BCE), reports: there is an island at the beginning of the Persian Gulf where quantities of valuable pearls are to be found (*ἐν ἡ μαργαρίτης πολὺς καὶ πολυτίμητός ἐστιν*).⁵

More accurate descriptions have survived in Athenaeus of Naucratis' *Deipnosophistae*, accompanied by ethnographic observations, such as the following one, quoted from Chares of Mitylene – who participated in Alexander's expedition and wrote a book entitled *Stories about Alexander (Peri Alexandron Historiai)*:

They [=the natives] extract white bones [ὀστᾶ], which they call *margaritai*, from it, and use them to produce necklaces, bracelets, and ankle bracelets. The Persians, the Medes, and all the inhabitants of Asia are more interested in these than in jewellery made of gold.⁶

This leads to the conclusion that, at the time when the Graeco-Macedonians discovered the Iranian and Indian worlds, Indian Ocean pearls had long been highly esteemed among the peoples settled there. Conversely, by closely linking the *margaritês* to Asian cultures, Alexander's companions make it clear to us that pearls were not in use in the Mediterranean world in the late fourth century BCE.

The publication of the accounts of Alexander's companions presumably made the Greek – educated – audience aware of pearls as one of the numerous *mirabilia* of the Erythraean world.⁷ The third century BCE, however, betrays almost no sign that a Greek taste for pearls was developing. The extant textual evidence is totally silent. As for the very few archaeological remains, they cannot be regarded as significant pieces of evidence. The famous gold-plated bronze pin mounted with a large pearl – in turn surmounted with a small pearl – dedicated to the Paphian Aphrodite by Eubola wife of Aratas, a member of the Ptolemaic court, was once dated to the third century BCE; it is now believed to be a second-century BCE artefact.⁸ A necklace of unknown origin – Mitylene has been suggested – with 26 pearls is vaguely dated to the late classical or early Hellenistic period.⁹ Such a tiny quantity of material evidence should prevent us from incautiously assuming a high level of Greek interest in pearls. This is not to say that nothing was going on. Indeed, one may compare this long period to an incubation time: the Mediterranean consumption silently developed to finally show unequivocal signs of its existence.

On the basis of both material and textual evidence, I would contend that in the second century BCE pearls had at last found their lovers and customers in the Eastern Mediterranean world. R. A. Higgins, who carried out thorough research on ancient jewellery, points to the 'polychromy provided by the inlay, or attachment by other means, of stones and coloured glass' as the 'most important innovation, which transformed the appearance of Greek jewellery'. Chalcedonies, cornelian, clear quartzes and garnets were in use from 330 BCE onwards. Pearls, amethysts and emeralds – the latter two being partly imported from India¹⁰ – are also occasionally found in the second and first centuries.¹¹ Besides jewellery, a papyrus dated to 156 BCE has come down to us, mentioning a reward for a runaway slave who among several items stole ten pearls – here called *pina* instead of *margaritês*.¹² This is the first written document attesting that pearls were being in use in the Hellenistic world and especially in Ptolemaic Egypt. The owner presumably lived in Alexandria and maybe enjoyed a close relationship with the royal circle:¹³

The 25th year, *Epeiph* 16. A slave of Aristogenes son of Chrysippus, of Alabanda, ambassador, has escaped in Alexandria, by name Hermon also called Nilus, by birth a Syrian from Bambyce, about 18 years old, of medium stature, beardless, with good legs, a dimple on the chin, a mole by the left side of the nose, a scar above the left corner of the mouth, tattooed on the right wrist

with two barbaric letters. He has taken with him 3 octadrachms of coined gold, 10 pearls.¹⁴

Thus a profound change certainly occurred over the course of time, although it remains largely undocumented: the pearl which was originally perceived as a feature of Near Eastern and Indian societies, gradually appealed to the Greeks who finally became customers. Subsequently one may assume with relative certainty that changes in consumers' taste turned a barbarian curiosity into a desirable object – the introduction of polychromy in Hellenistic jewellery results from the same impulsion. More importantly, the second century BCE seems to be a pivotal moment of transition with respect to the supply chain. If pearls had not become more easily available to Mediterranean societies, the aforementioned evolution would certainly have ended. In fact, the second century BCE witnessed changes in the long-distance trade with Indian Ocean countries, especially in Ptolemaic Egypt – it is not by chance, in my opinion, that the first piece of written evidence is a Ptolemaic papyrus. As established by numerous studies and excavations, the Red Sea routes discovered and opened by Ptolemaic elephant hunters did not disappear when the kings abandoned this expensive activity, in the early second century.¹⁵ This amount of expertise was, I would say, bequeathed to Greek merchants who in the beginning targeted South Arabia and the Horn of Africa and later reached Indian harbours – the direct connections between the latter and Ptolemaic Egypt, apparently initiated by Eudoxus of Cyzicus, were destined to expand.¹⁶ Thus pearls could presumably be acquired either in an Arabian place, through Indian or Arabian middlemen – e.g., Aden – or in an Indian port – e.g., Barygaza. Though this is not the place to discuss the textual evidence documenting the Erythraean trade, I would like to mention, however, two documents which seem relevant to the question. The first one is Soterichos' dedication to Pan *Heuôdos* dated to 130 BCE. Among several duties, Soterichos was in charge of maintaining security along the tracks between Koptos and the Red Sea for those transporting frankincense and other 'exotic' goods.¹⁷ This vague expression *τᾶλλα ξένια* implies commodities other than frankincense – or aromatics, if the Greek word has a general meaning – were transported to Koptos: this may have included pearls. This seems to be corroborated by Strabo in his account of Eudoxus' first voyage. This adventurer returned with a cargo (*φόρτον*) of aromatics and precious stones (*ἀρώματα καὶ λίθους πολυτελεῖς*), which eventually was seized by Ptolemy VIII.¹⁸ Although Strabo's commentary points to gemstones extracted from earth and rivers,¹⁹ pearls – generally regarded as gemstones by Greeks and Romans²⁰ – may well have been included in the general category of *lithos polutelês*.

In conclusion, the Greek demand for Indian Ocean pearls seems to emerge in the second century BCE, influenced by factors entirely unknown to us, except those briefly presented above. That Alexandria played a key role in the supply chain seems beyond doubt, but other transit points in Syria should not be excluded. But another – and major – phenomenon was to take place in the late second century BCE, namely the Roman demand. Apparently it began at that time, as we shall see, and was to dramatically overshadow Greek consumption.

From interest to insania: Rome's craving for pearls (late second century BCE–second century CE)

In contrast to the sparse documentation of Hellenistic consumption, it is possible to reconstruct with relative accuracy the way in which the Roman demand for pearls evolved from simple interest into passionate desire. This information is wholly provided by Pliny the Elder. Let us say, on a very general level, that Pliny pays attention to the *primi inventores*, i.e. those by whom new techniques, fashions, phenomenon, etc., originated.²¹ In addition, as a direct witness of the intense Roman consumption, he found it important not to eschew this subject and informs the reader at the very beginning of the *Naturalis historia*:

(liii) Quantity of delicacies supplied by the sea (*quanta luxuriae materia mari sit*). (liv–lix) Pearls; how do they grow and where, how found; varieties of large pearl; their remarkable features, their nature, instances of their occurrence, when first used at Rome (*quando primum in usum venerint Romae*).²²

In fact, the promised details appear as a short notice in his thorough account of pearls:

Fenestella records that they [i. e., large pearls; *uniones*] came into common use at Rome after the reduction of Alexandria under our sway, but that small and cheap pearls [*margarita*] first came in about the period of Sulla – which is clearly a mistake, as Aelius Stilo states that the distinctive name [*unio*] was given to large pearls just at the time of the wars of Jugurtha.²³

This account, however laconic, is of the highest interest to historians, for it discloses three milestones marking the continuous grow of Roman consumption:

- 1 The annexation of Egypt after Mark Antony and Cleopatra were defeated (30 BCE).
- 2 The time of Sulla, referred to by Fenestella, a Roman historian of the early Imperial period. If Fenestella thought of Sulla's military achievements and dictatorship, he probably pointed to the 80s. Whatever the true time, Fenestella's opinion is rejected by Pliny.
- 3 The period of the Jugurthine war (111–105 BCE).

Without embarking on a thorough discussion of this excerpt,²⁴ let us say that an acceptable chronological scheme emerges, which is not inconsistent with the rest of relevant evidence. If, as it seems to me, Pliny is right in following Aelius Stilo,²⁵ then one should deduce that in the beginning, i.e., in the course of the second century BCE, the Romans discovered – in the Eastern Hellenistic Mediterranean – and then acquired low-quality pearls. In the late second century, the Latin word *unio*, applying to higher-quality pearls, first started to appear, implying that some Roman customers had come into contact with more beautiful items. Given the lack

of evidence, nothing accounts for this shift except for the factors relating to Hellenistic consumption which I suggested above: with the growth in trade, a wider range of pearls became available to customers, while simultaneously Roman tastes became more and more sophisticated (on this topic, see below). One may reasonably assume that in the first decades of the first century BCE, the demand for Erythraean pearls was now firmly rooted in Rome and Italy. These ornaments were presumably restricted to the upper classes of Roman society, but the issue of price remains one of the most elusive questions to be resolved.²⁶ This fact notwithstanding, several documents converge with Pliny, showing unequivocally that pearls – either *margarita* or *uniones* – were in use in Roman society in the first century BCE. For instance, during his praetorship in Sicily (74 BCE), Verres robbed merchants arriving from the Eastern Mediterranean of their cargoes, among which pearls are listed. Those had certainly been bought at Alexandria to be transported to Puteoli:

He [Verres] used to say whenever anyone came to Sicily a little better off than usual, that they were soldiers of Sertorius, and that they were flying from *Dianium* [in Spain]. They brought him presents to gain his protection from danger; some brought him Tyrian purple, others brought frankincense, perfumes, and linen robes; others gave jewels and pearls; some offered great bribes and Asiatic slaves, so that it was seen by their very goods from what place they came. They were not aware that those very things which they thought that they were employing as aids to ensure their safety, were the causes of their danger. For he would say that they had acquired those things by partnership with pirates, he would order the men themselves to be led away to the stone-quarries, he would see that their ships and their freights were diligently taken care of.²⁷

However, the most convincing piece of evidence is offered by Pliny himself, blaming Pompey for lavishly displaying pearls and gemstones in his third triumph over eastern nations in 61 BCE, and thus introducing a taste for such things. In fact Pompey produced – among many items – 33 pearl crowns, a grotto of pearls, on the top of which there was a sundial, and his own portrait rendered in pearls – this particularly raised Pliny's eyebrows, deploring the fact that so great a figure contributed to increase the corrupting presence of *luxuria*:

However, it was this victory of Pompey over Mithridates that made fashion veer to pearls and gemstones (*victoria tamen illa Pompeii primum ad margaritas gemmasque mores inclinavit*). The victories of Lucius Scipio and of Cnaeus Manlius had done the same for chased silver, garments of cloth of gold and dining couches inlaid with bronze; and that of Mummius for Corinthian bronzes and fine paintings.²⁸

Was Pompey responsible for the Romans liking pearls? Did he really act as a *primus inventor* (*primum*)? If so, Pliny would somehow contradict himself, for in his previous account, he points to the Jugurthine war and ignores Pompey's

triumph. That said, Pliny's testimony must not be dismissed: the verb *inclinare* may mean that Pompey amplified a trend that was already well developed among Roman citizens. In other words, Pompey displayed pearls in abundance on purpose, being aware that the viewers – to whom pearls were desirable – would be deeply impressed by this spectacle. This form of visual language devised by Pompey was probably misunderstood by Pliny, who rather denounces his *luxuria*.

In the following decades of the first century BCE until the battle of Actium, the Roman appetite for pearls certainly did not diminish. The fact that Pliny the Elder regards this phenomenon as a vicious circle – in terms of *luxuria* – implies a never-ending demand. Maybe this demand was impacted by the hard times of the civil war, but this question remains unanswered. At any rate, we are aware of a – not very effective – sumptuary law carried out by Caesar in 46 BCE, in which pearls are referred to:

He imposed duties on foreign wares. He denied the use of litters and the wearing of scarlet robes or pearls (*conchyliatae vestis et margaritarum*) to all except those of a designated position and age (*nisi certis personis et aetatibus*) and on set days.²⁹

After the annexation of Egypt, as Pliny explicitly states, an important shift in Roman consumption took place, with large pearls becoming more widely acquired. In other words, more women – from the upper classes and 'upper-middle' classes (see below) – bought more pearls, which were of various qualities (see below). To the historian's eyes, this is a fascinating case of a fashion phenomenon, having all sorts of implications in terms of economic, social and cultural history. To Pliny's eyes, this last phase of the process – which he witnessed himself – forms a climax in terms of *luxuria*:³⁰ 'It was once an affront to strict morality to visit [India] even for pearls (*quo margaritas quoque peti severibus moribus indignum erat*).'³¹

The time when having and wearing pearls was morally reprehensible was replaced by a period of intense consumption which went hand-in-hand with developing fashion. The moral bias of the majority of Roman authors led them to regard women's behaviour as irrational – the comparison with a form of madness (*insania*) is not infrequent:

Let women have gold in their bracelets and covering their fingers and on their necks, ears and tresses, let gold chains run at random round their waist; and let little bags of pearls (*margaritarum sacculi*) hang invisible suspended by gold chains from their lady owners' neck, so that even in their sleep they may retain the consciousness of possessing pearls (*unionum conscientia*).³²

Pliny also notes 'Adjoining Mount Atlas is Mauretania, which produces a great many citrus-trees – and the table-mania (*mensarum insania*) which the ladies use as a retort to the men against the charge of extravagance in pearls (*contra margaritarum [insania]*).'³³

This gradual transformation – though we do not know at which pace it actually moved – is not only documented by these morally oriented texts. The firmest confirmation comes from the strikingly numerous occurrences of the word *margarita* and *unio* in Latin texts, ranging from the Augustan period to the second century CE.³⁴ This considerable shift in the quantity of textual material is paralleled with archaeological evidence, for many jewels with pearls – rings, necklaces, earrings, bracelets, among others – date to this time.

Unfortunately, Pliny the Elder does not comment on the milestone he puts forward, leaving the task of appreciating why the annexation of Egypt represented a pivotal time to modern historians. The connections between this military-political event and the change in consumption pattern can only be hypothesised. Considering that Pliny/Fenestella speaks of pearls becoming more common (*promiscuum [usum]*) and abundant (*frequentem usum*), one can surmise that the supply chain had been modified, or improved. For instance, South India, i.e. the Kerala area, became a common destination after this time, as Federico de Romanis has shown.³⁵ In other words, by reaching Indian *emporio* situated close to the production areas, a wide range of pearls were now available to the *emporoi* and *negotiatores* based in Alexandria and/or Koptos. On a political – and ‘psychological’ – level, the Roman presence in the Red Sea area became visible to local polities, as far as the Bab al-Mandab area. Strabo speaks of merchants who were not afraid any longer to cross the strait and conduct business in India – the Kerala harbours – or Arabia.³⁶ The obvious conclusion is that the Red Sea trade – no sound point can be made with regard to the merchandise imported through the Gulf – had become easier, and subsequently that the supply chain was more efficient.

No doubt the producers also played a part in this phenomenon. One must remember that the notion of scarcity is particularly relevant to pearls: several hundreds of oysters will yield very few good pearls, some marginally more acceptable items, and many more pearls of lesser value. On the other hand, as we have seen, Roman demand did not decrease, and it was apparently met: our sources do not report any shortage.³⁷ Even if pearls could be handed down from generation to generation, they were constantly being bought, as Arrian states:

And thus, even to our day, those who bring merchandise from India to our country are at pains to purchase these jewels and export them, and rich and prosperous Greeks in the past, and Romans today, are still more eager to buy the sea *margarita* [pearl] (Ῥωμαίων νῦν ὅσοι πολυκτέανοι καὶ εὐδαίμονες μέζονι ἔτι σπουδῇ ὠνεύονται) as it is called in the Indian tongue.³⁸

A reasonable conclusion is that the producers in the Arab-Persian Gulf and the Gulf of Mannar managed to match the needs of all consumers, either Mediterranean or Asian. In other words, the suppliers responded to Mediterranean demand by increasing production, as frankincense gatherers in South Arabia did:

It used to be the custom, when there were fewer opportunities of selling frankincense, to gather it only once a year, but at the present day trade

introduces a second harvesting. The earlier and natural gathering takes place at about the rising of the Dog-star, when the summer heat is most intense . . . The frankincense from the summer crop is collected in autumn; this is the purest kind, bright white in colour. The second crop is harvested in the spring, cuts having been made in the bark during the winter in preparation for it; the juice that comes out on this occasion is reddish, and not to be compared with the former taking.³⁹

To be more precise, I assume that more boats were used and that more divers engaged in pearling. The fishing season was perhaps extended. In addition, the parallel drawn with frankincense enables me to state that Roman needs were also satisfied with substandard pearls. The point is that if the Erythraean producers had restrained the dynamic of production, the Mediterranean consumption would not have reached the level attested by Roman authors.

One cannot end this section without examining the part played by Roman – and Italian – customers. Beside taste (see below) and fashion, which necessarily fuelled this insatiable demand, one must examine to what extent their growing financial resources enabled elite and non-elite social classes to buy pearls and boost demand. Unsurprisingly, data and information are missing, except for the following text, in which, interestingly, the annexation of Egypt represents a significant milestone. According to Suetonius, a huge amount of money was put into circulation after Actium:

He often showed generosity to all classes when occasion offered. For example, by bringing the royal treasures to Rome in his Alexandrian triumph he made ready money so abundant, that the rate of interest fell, and the value of real estate rose greatly. (*Nam et in vecta urbi Alexandrino triumpho regia gaza tantam copiam nummariae rei effecit, ut faenore diminuto plurimum agrorum pretiis accesserit*).⁴⁰

This passage has long attracted the attention of scholars interested in economic history, commenting on the relationship established by Suetonius between the *copia nummarum* (abundance of money) which entails lower rates of interest, and the higher prices of real estate. Jean Andreau, referring to texts conveying similar conceptions, points out that these variations are correlated to the fact that money was preferably invested in land.⁴¹ I wonder, however, to what extent this flow of cash encouraged conspicuous consumption, and, e.g., the purchase of Erythraean goods. With respect to pearls, they were all the more attractive to customers as they provided a store of value:

Perfumes serve the purpose of the most superfluous of all forms of luxury (*materia luxus*); for pearls and jewels do nevertheless pass to the wearer's heir (*margaritae enim gemmaeque ad heredem tamen transeunt*), and clothes last for some time, but unguents lose their scent at once, and die in the very hour when they are used.⁴²

Such are the plausible – if not beyond doubt – facts that I am able to draw from the extant evidence in order to reconstruct an acceptable description of this phenomenon. I am aware, however, that Rome's incredible demand for pearls is the combined result of many factors, the majority of which will elude us forever, just as Clement of Alexandria failed to explain why his contemporaries loved pearls and gemstones:

It is childish to admire (μειρακιῶδές ἐστι τεθηπέναι) excessively dark or green stones, and things cast out by the sea on foreign shores (τῆς ἀπεξενωμένης θαλάττης τὰ ἐκβράσματα = pearls), particles of the earth. For to rush after stones that are pellucid and of peculiar colours, and stained glass, is only characteristic of silly people, who are attracted by things that have a striking show (ἀνόητοι ἄνθρωποι ὑπὸ τῶν πληκτικῆν ἔχόντων φαντασίαν ἐλκόμενοι). Thus children, on seeing the fire, rush to it, attracted by its brightness; not understanding through senselessness the danger of touching it. Such is the case with the stones which silly women wear fastened to chains and set in necklaces, amethysts, ceraunites, jaspers, topaz, and the Milesian 'Emerald, most precious ware.' And the highly prized pearl has invaded the woman's apartments to an extravagant extent.⁴³

Reflecting on Roman consumption from a social perspective

The diachronic reconstruction which I have suggested forms a good starting point for further analysis, especially in terms of economic, social and cultural history. In fact, it opens a window onto many subjects which cannot be treated within the limits of this chapter. Accordingly, a series of important questions have been left aside on purpose – e.g., the cultural transfers accompanying the adoption of Erythraean pearls, their symbolic value, the range of their possible prices, etc. Thus I have selected three themes which, this reservation notwithstanding, will shed more light on some major aspects of this social phenomenon.

Taste as a driving force of consumption

Clement of Alexandria's aforementioned comparison of humans being fascinated by pearls and gemstones just as children are attracted by the brightness of fire strikingly contrasts with the first descriptions brought by Alexander's companions: contrary to the former, the latter showed themselves rather indifferent to their attractive appearance. The point is that pearls became – gradually – more desirable as the Greeks and Romans discovered their intrinsic beauty – that is to say, as they developed their taste. This long process necessarily involved cultural transfers, if the Mediterranean customers were, so to speak, taught by the Asian peoples who had been buying, selecting and using pearls for centuries. Be that as it may, when Pliny the Elder says that the driving force behind Roman consumption (*usus*; see above) was the desire of larger pearls (*uniones*), and that small pearls became despised, he clearly stresses the dynamic role of taste.

From a certain point of view – which no doubt Pliny the Elder would hardly share – the intertwined development of taste and consumption may be compared to a virtuous circle: the more pearls were demanded, the more refined people's taste became, with retailers, craftsmen and customers acquiring expertise and being able to assess their qualities and faults. That they became true connoisseurs is shown by numerous Latin texts contemporary with the Roman *insania*, which contain a remarkable variety of words describing pearls' colour, shape, lustre and size. Here again Pliny's *Natural History* stands out as the most beautiful document. His account, full of descriptive remarks, gives us a picture of the exquisite taste of which the corrupting *luxuria* was responsible. Below I list the criteria of good and bad pearls which turn up, and the words applying to them.⁴⁴ It is worth noticing that some are of Greek origin, which reminds us that Greek-speaking people were largely involved in the supply chain. It is also important to keep in mind that Pliny speaks almost exclusively about Erythraean pearls. Mediterranean pearls, having no value, were not brought to market; as for pearls from Britannia, they were less esteemed than the Erythraean and apparently were not offered for sale in significant quantity.⁴⁵

- 1 Unsurprisingly, Pliny pays attention to the volume and size of pearls. He refers to small (*parvus*) and very small items (*minutus*) – the latter may correspond to the so-called 'seed-pearls', which are frequently obtained from pearl-oysters.⁴⁶ Such were the pearls imported in the early age of Roman consumption. The word *vilis* ('of small price or value'; 'poor', 'paltry', 'mean') employed by Pliny renders their low value. It probably targets not only their smallness but also other imperfections such as bad colour, poor lustre, etc. Conversely large pearls (*magnus*, *maximus*) ranked high.
- 2 It emerges from Pliny's account – and particularly from the astonishing story of pearls originating from a dewdrop – that the most sought-after objects were perfectly round (*rotunditas*, *rotundus*). This is not to say that pearls partly round were not liked, for those called *tympanon* (a word of Greek origin meaning 'drum', 'tambourine') were in usage – though the object referred to by Pliny cannot be identified: 'Pearls with only one surface, and round on that side but flat at the back, are consequently termed tambourine pearls; we have seen them clustering together in shells that owing to this enrichment were used for carrying round perfumes.'⁴⁷

As for pear-shaped pearls, or 'drop pearls', bearing the enigmatic Greek name *elenkhos* – the adjectives *procerus* and *fastigata* are also employed – they were highly esteemed: 'The longer ones also have a charm of their own. Those that end in a wider circle, tapering lengthwise in the shape of perfume-caskets, are termed *elenchi*.'⁴⁸

- 3 With respect to colour, the white (*candidus*, *candor*) was so praised that its various shades were not equally ranked (*et in candore ipso magna differentia*⁴⁹). The most sought-after one was termed *exaluminatus* (*summa laus coloris est exaluminatos vocari*),⁵⁰ meaning 'of the colour of alum'. I tend to believe that this adjective may also point to excellent lustre.⁵¹ On the contrary, pearls dirty

in colour – and of poor lustre – are likened to a cloudy sky (*nubilum trahi colorem*).⁵² Reddish items (*rufescere*) were not held in high esteem, while a yellow colour characterised ‘old’ pearls (i.e., pearls worn by age and usage – see below, n. 70).

- 4 Finally, it is worth observing that ‘baroque’ (i.e., irregularly shaped) pearls reached the Roman markets, even though they were certainly not categorized as being high-quality pearls: the objects nowadays termed ‘blisters’⁵³ were present under the Greek name of *physema* (‘that is blown’, ‘produced by blowing’ in Greek). They are correctly described by Pliny comparing them to inflated matter (*inflata sine corpore*).

A careful and thorough examination of Latin and Greek texts would bring to light many more words and expressions. This sample, however, suffices to prove the refined taste of the Mediterranean consumers. Another crucial fact lies behind this catalogue: contrary to what may be a *communis opinio* among scholars, pearls offered for sale were not automatically remarkable pieces. This certainly caused this luxury to disseminate and reach non-elite social classes.

Pearls for the ‘poor’ and pearls for the rich

Should we rely on Latin literary sources from the first and second centuries CE, we would imagine that only the wealthiest individuals could purchase pearls. Indeed, Roman authors are almost unanimous in denouncing pearls as expensive and not affordable to everyone. This is illustrated by many examples, among which I chose the two following ones. First comes a character from the *Satyricon*, Habinnas. This friend of Trimalcio angrily comments on the pearl earrings he bought to his wife:

‘What?’ said Habinnas, ‘you cleaned me out to buy you a glass bean. I declare if I had a daughter I would cut off her ears. If there were no women, we should look on all gems as so much dirt; as it is, we piddle warm and drink cold.’⁵⁴

As for Pliny the Elder, he voices a rather similar concern: ‘Also women spend more money on their ears, in pearl earrings, than on any other part of their person (*nec in alia parte feminis majus impedium margaritis dependentibus*).’⁵⁵

There are a few testimonies, however, that contradict such a general judgement. Interestingly, they all occur in Pliny’s *Natural History*. First, as seen above, this author refers to pearls finding their way into common usage after the annexation of Egypt. My conclusion is that, concomitant with the growth of consumption and the improvement of taste, the market opened to a larger number of customers. This trend, important in terms of social history, is even more clearly expressed in the following sentence, which closes a description of the earrings called *crotalia*:⁵⁶ ‘And nowadays even poor people covet them – it is a common saying that a pearl is as good as a lackey for a lady when she walks abroad! (*Cupiuntque iam et pauperes, lictorem feminae in publico unionem esse dictitantes*).’⁵⁷

In other words, ‘poor’ *matronae* displaying *crotalia* and other jewels made with pearls affordable to them could be seen in Rome in the first century CE. Who were these ‘poor women’? It is not easy to overcome Pliny’s elusiveness and grasp the meaning of *pauperes*.⁵⁸ This word can be explained in a negative way: he may consider as ‘poor’ the women who did not belong from the elite class. Identifying, however, the so-called poor with indigent people, as some scholars did, would certainly be a mistake.⁵⁹ Evelyne Dubois-Pélerin rightly suggests that Pliny pointed to ‘la pauvreté sans dénuement des femmes de condition modeste’.⁶⁰ To be more precise, Pliny probably speaks of the *plebs media*, to which a study by Paul Veyne was devoted. As a social group, according to Veyne referring to Pliny the Elder and Tacitus, the *plebs media* contrasts with the *plebs humilis*, or *plebs sordida*. The former forms ‘une étroite classe moyenne’, while the latter includes the destitute (*egentes*). Veyne emphasises the importance of the adjective *media*, which distinguishes this group from that of the poor and freedmen. On the basis of funerary epitaphs, Veyne has explored the sociology of this middle class. He concludes that the *plebs media* enjoyed good – if not important – incomes, enabling it to secure a proper livelihood. Some – the majority, he says – had revenue-producing estates, while others engaged in trade, including trade in luxuries, or in craft activity. They deliberately kept their distance with the destitute and the freedman – even wealthy – who did not belong to their circle (‘Ils ne font pas partie de leur monde’); on the other hand they felt inferior to the upper social classes, i.e. the local aristocracy (‘curial class’), the equestrians and the “senators. In an attempt to sum up the ‘sagesse de classe’ of this group, Veyne writes: ‘Cette prospérité n’eut rien d’ostentatoire ni d’évergétique, mais elle suffisait à les distinguer de la “foule indigente”’.⁶¹

Veyne’s idea that the *plebs media* avoided conspicuous consumption – a statement certainly based on the biased language of funerary epitaphs – does not seem consistent with Pliny, depicting the *pauperes* proudly exhibiting their *crotalia* in public space – as probably did Scintilla, Habinnas’ wife. I personally tend to trust Pliny’s testimony, considering that if ‘poor women’ made the economic decision to buy pearls, not displaying this social sign would be nonsensical. That said, this fact poses the question of how and why pearls became accessible to middle-class individuals. It is likely that, contrary to the commonplace conveyed by Latin literary sources, these ‘luxuries’ were not necessarily expensive or priceless. Since no actual data has survived in the extant evidence, we do not know if, on a very general level, the price of pearls decreased in the course of time. The documents, however, assure us that a variety of pearls were available on the Roman market. While some customers were capable of purchasing pearls remarkable in terms of size, colour, lustre, etc., lower-quality items – i.e., smaller, uneven, yellowish pearls, etc. – were in the reach of less well-off buyers. The existence of the latter is proved by archaeological artefacts: earrings consisting of a bunch of very small pearls have been recovered in the Vesuvian area; these may well be the small common pearls mentioned by Pliny. At any rate, it seems to me that, by offering the customers various types of pearls, the suppliers caused this object to become ‘common’ (*in promiscuum ac frequentem usum venisse*) as it

spread into the middle class. Interestingly the word *promiscuous* means ‘mixed’, ‘not separate or distinct’, ‘without distinction’, as if Pliny referred to a consumption practiced by different social classes.

This, of course, recalls the notion of the ‘trickledown effect’ as posited by T. Veblen.⁶² Women from the *plebs media*, as well as freedmen’s wives, had joined the cohort of buyers. In addition, some documents leave no doubt about the social competition entailed by Rome’s craving for pearls: Scintilla boasted that she owned the most splendid pearl earrings (*Domini, inquit, mei beneficio nemo habet meliora*). At the opposite end of the social spectrum, elite women were eager to surpass their competitors, the most famous one being Lollia Paulina. She was probably successful in such an ambition:

I have seen Lollia Paulina, who became the consort of Gaius, not at some considerable or solemn ceremonial celebration but actually at an ordinary betrothal banquet, covered with emeralds and pearls interlaced alternately and shining all over her head, hair, ears, neck and fingers, the sum total amounting to the value of 40,000,000 sesterces, she herself being ready at a moment’s notice to give documentary proof of her title to them (*ipsa confestim parata mancipationem tabulis probare*); nor had they been presents from an extravagant emperor, but ancestral possessions, acquired in fact with the spoil of the provinces.⁶³

This dynamic of taste, demand and social competition, which no legislation or authority could curtail,⁶⁴ lasted at least until the early second century CE (see Arrian, quoted above).

Craftsmen and retailers

Earlier, I suggested that the lexicon of qualities and faults could serve as a proxy for the evolution of customers’ taste, which in turn mirrors and accompanies the spectacular growth of Roman consumption, as well as its social spread. Rome’s craving for pearls is reflected in another fact relating to the city’s social history: professionals specialising in the production and retail of jewellery adjusted to this novel demand. First, the jewellery makers (*gemmarii*) had to acquire new skills in order to handle pearls properly; second, a new type of retailer appears, namely the *margaritarii* – the art of making fake pearls falls within the scope of this section, but this study would exceed the limits of this chapter.

Pearls differ in many respects from gemstones. Contrary to the latter, the former need neither cutting nor polishing, since the admirable surface, shape and lustre of – good – pearls are made by Nature;⁶⁵ with respect to low-quality objects, there is not much that can be done by the craftsmen’s hands (see below). Thus the main operation required for pearls to be mounted on earrings and necklaces is drilling. It is likely that a certain quantity of pearls were sold intact (*rudēs*⁶⁶), the holes being drilled at the owner’s risk. Some scholars have argued that specialised workers called *diatretarii* (i.e., ‘drillers’) specialised in this operation, but there is no

evidence to support such a statement.⁶⁷ In reality, jewellers – capable of boring holes in gemstones – had in all likelihood enough expertise to drill pearls, a task carried out ‘by means of a simple bow-drill, with either a flint point or a wood or metal point fed with an abrasive’.⁶⁸ This is not to say, however, that this delicate operation was entirely similar to boring holes into gemstones. In fact, to undertake pearl drilling some specific skills were probably required by the *gemmarius*:

Pearl drilling is a most delicate operation. It is necessary that the drill points should have the proper shape . . . it is also important that the drill should be revolved with perfect regularity, so as not to jar or jolt the pearl, as this is likely to lead to the cracking of the pearl or to the breaking of the drill. This latter happens not infrequently, and is due either to the structure of the pearl, the clogging of the drill, or to encountering a hard grain of sand enclosed in the pearl . . . If the pearl is not properly secured, if the drill point is too irregular, if it is not properly centred, or if it is too rapidly rotated at the start, one or more layers of the pearl are likely to be broken, giving an irregular, ragged appearance. If, again, the drill is rotated too rapidly as it is leaving the other side of the pearl, one or more layers are occasionally forced off, and this in turn will produce a break on the pearl.⁶⁹

While drilling was not an operation entirely unknown to craftsmen, there are other treatments that apply to pearls exclusively. Those were necessarily carried out by trained workers, whose know-how, in my opinion, was ultimately borrowed from Asian specialists – this would be a case of cultural transfer. Preserving the pearls’ whiteness is perhaps the most important treatment demanded by pearl owners. This concern seems to be echoed by Pliny: ‘There is no doubt that pearls are worn away by use, and that lack of care makes them change their colour (*usu atteri non dubium est coloremque indiligentia mutare*).’⁷⁰

Several recipes to clean and bleach pearls can be found in the third-century Papyrus of Stockholm: honey, bitch’s milk, or natron turn up as ingredients used by artisans – if not the owners themselves. Interestingly, there is a process explicitly attributed to Indians, and thus implying an actual cultural transfer – I wonder to what extent the *emporoi* were instrumental in introducing this process to the Mediterranean world:

Cleaning of a pearl (μαργαρίτου σμῆξις). When perchance a genuine pearl becomes faded and dirty through use the Indians are accustomed to cleaning it in the following manner (ἂν δέ ποτε τῇ χρήσει τὸ ἀληθινὸν μάργαρον ἐκπνεῦσαν ῥυπωθῇ, ὧδε ἀποσμῶσιν Ἰνδοί). They give the pearl to a rooster as food in the evening. In the morning they search for it again in the excretion and ascertain that the pearl has become clean in the crop of the bird; and, moreover, has acquired a whiteness which is not inferior to the former (κεκαθαρμένον λευκότητά τε προσκτησάμενον τῆς ἀρχαίας οὐκ ἀποδέουσιν).⁷¹

There is another technique to make a pearl look better. Basically pearls are made of more or less thin layers of nacre, a feature of which Pliny the Elder was

aware – perhaps from personal observations in a workshop:⁷² ‘Indeed a healthy offspring^[73] is formed with a skin of many thicknesses, so that it may not improperly be considered as a hardening of the body (*sani quidem partus multiplici constant cute, non improprie callum ut existimari corporis possit*).’⁷⁴

Because of this peculiarity, pearls injured by coming into contact with acid substances, or scratched by being rubbed against a rough surface, or spoilt for any reason, can be improved by the art of “pearl peeling”. This delicate operation, requiring much care and attention, consists in removing the outer layers with a sharp knife.⁷⁵ If the process is not carried out properly, the pearl will end up with an irregular surface and accordingly will lose its lustre. Pliny informs us that this technique was known in Rome – again, this technical ability was probably acquired from Asian experts. Having mentioned the amazing internal structure of pearls, he adds as a comment: ‘and consequently experts subject them to a cleansing process (*Itaque expurgantur a peritis*).’⁷⁶

I am convinced that the verb *expurgare* applies to the so-called ‘peeling process’. Moreover, by using the word *periti*, Pliny emphasises the fact that this risky operation – a failure causes irremediable damage – had to be executed by skilled workers. This operation is hinted at by Aelian, although his description is distorted by his anthropocentric approach – the pearl is supposed to defend itself against its human enemies:

It has a naturally smooth and well-rounded contour, but if a man should want by artificial means to make round and smooth some stone not naturally so, the pearl confounds his design, for it declines to yield and develops roughnesses, thereby denouncing the plot that has been laid to secure its beauty.

(εἰ δὲ ἐθέλοι τις τῶν πεφυκότων ἑτέρως τινὰ σοφίας τέχνη περιγράψαι τε καὶ λεῖον ἀποφῆναι τὸν λίθον, ὁ δὲ ἐλέγχει τὴν ἐπιβουλὴν· οὐ γὰρ πείθεται, τραχύτητας δὲ ὑπαναφύει, καὶ ὅτι ἄρα ἐπιβεβούλευται ἐς κάλλος κατηγορεῖ ταύτην).⁷⁷

The growth of Roman consumption entailed also the emergence of retailers having an expertise in pearls. In Greek sources, they bear the usual name of κάπηλος (“retailer”):

In the opinion of those who trade in pearls and those who buy them (δοκοῦσι δὲ ἄρα τοῖς τούτων καπήλοις καὶ τοῖς ὠνουμένοις) pearls that are pure white and large are the most beautiful and the most highly esteemed, and I can avow that many of those who make a livelihood by them have become wealthy.⁷⁸

In Latin documents, which mirror the structure of demand in Rome and Italy more accurately, they are known as *margaritarii*. In her study, Claire Holleran rightly says that ‘the retail trade that grew up in Rome was as varied as the consumers that it served and the products that is supplied.’⁷⁹ This may explain the appearance of a specific term, which turns up in literary sources. The fourth-century CE astrologer

Firmicus Maternus mentions *margaritarii* and *margaritarum mercatores*.⁸⁰ Actually, however, the best evidence is provided by a set of inscriptions, of whom the most famous is the remarkable epitaph of the freedman G. Ateilius Euhodus – a name ‘che indichi con chiarezza il nome del proprio patrono senatore’.⁸¹ The stone is still visible standing along the Via Appia:

Stop traveller and look at this mound of earth on the left where the bones of a good person are enclosed, one compassionate, devoted and fond of the poor (*amans pauperis*). I ask you traveller, do not harm this monument. Gaius Ateilius Euhodus, freedman of Serranus, dealer in pearls (*margaritarius*) on the Sacred Way is buried in this monument. Farewell, traveller. According to my will no-one may be placed and buried in this monument except those freedmen who I granted and assigned this in my will.⁸²

For the city of Rome, a total of eighteen registrations have been found where the trade of *margaritarius* is cited, with only eight of them found in the exact place where they conducted their business. The rest of the inscriptions mention the trade but not the place. Tassini’s prosopographical study shows that this trade designation may go back to the first century BCE. G. Ateilius Euhodus might be a freedman of C. Ateilius Serranus, consul in 106 BCE or of Sex. Ateilius Serranus, questor in 63 BCE. A comparison with the tentative chronological frame presented in the first part of this chapter favours the more recent date: *margaritarii*, in my opinion, were more likely to emerge at the time when large pearls (*uniones*) seriously appealed to Roman citizens rather than the period when this consumption first started, i.e. the late second–early first centuries BCE. The other *margaritarii* to whom a date may be attributed ran their business after the annexation of Egypt.⁸³

A number of inscriptions have been recovered in the *Via Sacra* area, a district where the *margaritarii* appear to have concentrated their activities.⁸⁴ Shops (*tabernae* or *officinae margaritariorum*) were located not far from the *tabernae argentariae*. Holleran also mentions the *Saepta*, which were no longer used for voting by the time of Tiberius. She describes them as a ‘popular meeting place’, with people attracted ‘by the luxury goods for sale’ displayed in the porticoes surrounding the *Saepta*.⁸⁵ She also aptly recalls the name of Mamurra, described by Martial as wandering in the area, examining slaves, ivories, tortoise-shell couches, murrhine vessels, pearl earrings, etc.⁸⁶ Another proxy for the flourishing Roman market is the *Porticus Margaritaria*, located in the *Regio VIII*, whose precise location between the *Forum Boarium* and the *Forum Holitorium* has not been identified.⁸⁷

The main occupation of the *margaritarii* was selling various qualities of pearls to various individual customers, according to their needs and financial means. Just as the *emporoi*, the *margaritarii* would have had to master the art of assessing the qualities and defaults of their goods. To put it in other words, expertise was obviously needed, but we wish we had more detail about those activity.⁸⁸ No doubt, weight was a major criterion for valuing a pearl, just as it is nowadays. We hear indirectly from Pliny the Elder that a pearl’s weight was measured with

scales: he is aware of the heaviest items that could be offered – this does not concern some rare and exceptional pieces, which surpassed the standards, such as the one offered to Servilia by Caesar:⁸⁹ ‘In weight few specimens have hitherto exceeded half an ounce by more than one scruple (*pondus ad hoc aevi semunciae pauci singulis scripulis excessere*).’⁹⁰

However, what qualifies a pearl as a good or bad specimen is not measurable: exactly as today, lustre, colour, shape, etc. need the *margaritarii*’s expertise to be properly assessed. Incidentally, their ability to judge the value of pearls allowed them to buy pearls from ruined families, or take them as a pledge. Some cases are known to us. Vitellius, wanting money to cover his travel expenses, pressed his mother to sell one of her pearls.⁹¹ Turia, celebrated by her husband’s eulogy, provided for his needs during his flight by sending him her gold and pearls, which he obviously exchanged for money ([*amplissima subsi*]dia fugae meae praestitisti ornamentis; [*ut ea ferrem me*] cum omne aurum margaritaeque corpori [*tuo detracta trad*]isti mihi).⁹²

Conclusion

In this chapter, I have sought to demonstrate how the Roman demand for pearls, whose origins must go back to Rome’s second century contacts with the Eastern Mediterranean, developed. Pliny the Elder’s information, combined with scattered literary documents and various archaeological artefacts, can allow us to reconstruct an acceptable chronological frame. In fact, the extant evidence reveals a dynamic phenomenon: the discovery of pearls generating a strong demand and, finally, true craving. What fuelled this consumption is not easily established. Yet Roman tastes, which became more and more sophisticated, must be counted among the main driving forces. As a proxy for this refined taste and strong demand, specialised retailers appeared, while craftsmen had to acquire new skills. A most important aspect of this case of luxury consumption is its spreading to the ‘middle classes’ – the so-called ‘poor’ – and freedmen. It is hoped that other commodities will be studied from the same perspective – pepper, *cinnamomum*, silk seem to be excellent candidates – in order to provide a more authentic picture of Greek and Roman interest in eastern desirable ‘luxuries’.

Notes

- 1 See Cobb, the Conclusion in this volume.
- 2 Morley (2008): 573–574. More significantly, four chapters of Wilson and Bowman (2017) deal with Rome’s eastern commerce.
- 3 Morley (2008): 574.
- 4 See Schneider (forthcoming).
- 5 Strab. 16.3.7 (= Nearchus, *FGrH* 133 F28).
- 6 Athen. *Deipn.* 3.93 (= Chares of Mitylene, *FGrH* 125 F3). Also see Athen. *Deipn.* 3.93 (= Androsthenes of Thasos, *FGrH* 711 F1): ‘it is very expensive throughout Asia and is sold in Persia and other inland regions for its weight in gold.’
- 7 For other Indian Ocean *thaumasia*, see, e.g., Strab. 16.3.7 (= Nearchus, *FGrH* 133 F28): ‘And he [Nearchus] speaks of the large size of the crabs and sea-urchins, which

- is a common thing in the whole of the exterior sea . . . And he says that he saw a whale stranded on the beach that was fifty cubits in length.’
- 8 The British Museum, Museum number: 1888,1115.2. This object can be viewed online (www.britishmuseum.org/research/collection_online/). The online description includes recent bibliographical references. About the difficulty of establishing the date of jewellery, see Trinquier et al. (2016): 26.
 - 9 Metropolitan Museum Catalogue: no. 99.23 (‘late Classical or Early Hellenistic - Date: ca. 330–300 B.C.’). See Donkin (1998): 55; 74, n. 157.
 - 10 Plin. *HN* 37.21: ‘Here the first rank is held by the amethysts of India (*principatum amethysti tenent Indicae*)’; Plin. *HN* 33.5: ‘we drink out of a crowd [*sic*] of precious stones, and set our cups with emeralds, we take delight in holding India for the purpose of tipping (*Turba gemmarum potamus et smaragdis teximus calices, ac temulentiae causa tenere Indiam iuvat*).’
 - 11 Higgins (1980): 155. Also see Higgins (1980): 38; Ogden (1992): 39.
 - 12 Schneider (forthcoming).
 - 13 *Prosopographia Ptolemaica* n° 5786.
 - 14 A. S. Hunt and C. C. Edgar, *Select Papyri*, 2.234 (ἔχων χρυσίου ἐπισήμου μναιεῖα γ, πῖνας ι).
 - 15 Schneider (2014): 199.
 - 16 See, for instance: Cobb, Chapter 2 in this volume; Young (2001): 27–89; Schneider (2014): 199–201.
 - 17 *OGIS* 132 = Bernand (1977) n° 86. This area was called ‘the Mountain of Koptos’ (l. 9–11: ‘παρεξόμενος τὴν ἀσφάλειαν τοῖς / κατακομίζουσι ἀπὸ τοῦ κατὰ Κόπτων ὄρου[ς] / τὰ λιβανωτικά φορτία καὶ τὰλλα ξένια’). On the meaning of ξένια, see Bernand (1977): 259–60 – the alternative signification of ‘gift of hospitality’ is hardly convincing, as Bernand points out.
 - 18 Strab. 2.3.4.
 - 19 Strab. 2.3.4: ‘precious stones (some of which the rivers bring down with the sands, while others are found by digging, being solidified from a liquid state, just as our crystals are) (λίθους πολυτελεῖς, ὧν τοὺς μὲν καταφέρουσιν οἱ ποταμοὶ μετὰ τῶν ψήφων, τοὺς δ’ ὀρυκτοὺς εὐρίσκουσι πεπηγότας ἐξ ὑγροῦ, καθάπερ τὰ κρυστάλλινα παρ’ ἡμῖν).’
 - 20 Schneider (forthcoming).
 - 21 Naas (2002): 321–326.
 - 22 Plin. *HN* 1.9 (table of contents of Book 9).
 - 23 Plin. *HN* 9.123 (‘*Romae in promiscuum ac frequentem usum venisse Alexandria in dicionem redacta, primum autem coepisse circa Sullana tempora minutas et viles Fenestella tradit manifesto errore, cum Aelius Stilo circa Jugurthinum bellum unionum nomen imponicum maxime grandibus margaritis prodat*’).
 - 24 Schneider (forthcoming).
 - 25 Aelius Stilo Praeconius, a Roman philologist who flourished between 110 and 85 BCE.
 - 26 Schneider (forthcoming).
 - 27 Cic. *In C. Verrem, actio secunda*, 5, 146. Also see Cic. *Orator*. 78.
 - 28 Plin. *HN* 37.12.
 - 29 Suet. *Caes.* 43.1. On this topic, see, e.g., Zanda (2011): 127–128.
 - 30 See, in particular, Plin. *HN* 104–105: ‘But why do I mention these trifles when moral corruption and luxury spring from no other source in greater abundance than from the genus shell-fish? It is true that of the whole of nature the sea is the most detrimental to the stomach in a multitude of ways . . . But what proportion do these form when we consider purple and scarlet robes and pearls! It had been insufficient, forsooth, for the seas to be stowed into our gullets, were they not carried on the hands and in the ears and on the head and all over the body of women and men alike.’
 - 31 Plin. *HN* 36.51.
 - 32 Plin. *HN* 33.40.

- 33 Plin. *HN* 9.91.
- 34 Schneider (forthcoming).
- 35 De Romanis (1982–87): 147–152; 183–198. Also see Cobb, chapter 2, this volume.
- 36 Strab. 17.1.13.
- 37 Contrary to ivory: ‘even the bones have begun to be cut into layers, inasmuch as an ample supply of tusks is now rarely obtained except from India, all the rest in our world having succumbed to luxury (*etenim rara amplitudo iam dentium praeterquam ex India reperitur, cetera in nostro orbe cessere luxuriare*)’ (Plin. *HN* 8.7).
- 38 Arrian, *Ind.* 8.9.
- 39 Plin. *HN* 12. 58.
- 40 Suet. *Aug.* 41.1–2.
- 41 Andreau (1997): 211–213: ‘Le prix des terres n’a rien à voir ici avec la vie agricole; ses variations s’expliquent . . . parce que les terres sont un moyen de placer l’argent.’
- 42 Plin. *HN* 13.20.
- 43 Clement of Alexandria, *Paedagogus*, 2, 12, 118–120.
- 44 Plin. *HN* 9.102–124.
- 45 Plin. *HN* 9.106 (*Indicus maxime has mittit oceanus*); Plin. *HN* 115–116.
- 46 Kunz and Stevenson (1908): 56; Schneider (forthcoming).
- 47 Plin. *HN* 9.109.
- 48 Plin. *HN* 9.113.
- 49 Plin. *HN* 9.113.
- 50 Plin. *HN* 9.113.
- 51 Also see Plin. *HN* 9.108 (*pro claritate matutina serenum*).
- 52 Plin. *HN* 9.107.
- 53 Hemispherical pearls formed attached to the mussel’s shell.
- 54 Petron. *Satyr.* 69.2.
- 55 Plin. *HN* 11.136.
- 56 This type of pearl pendant earring (with two or three pearls) was known as *crotalia* (‘castanets’) from the sound the pearls made when they rattled together.
- 57 Plin. *HN* 9.114.
- 58 Schneider et al. (2014): 36–38.
- 59 For instance, Weeber (2003): 106, speaks of ‘ärmeren Bevölkerungsschichten’.
- 60 Dubois-Pélerin (2008): 223.
- 61 Veyne (2000): 1169–1177, 1179–1181, 1183.
- 62 This expression refers to fashion flowing vertically from the upper classes to the lower classes within society, each social class being influenced by a higher social class.
- 63 Plin. *HN* 9.117.
- 64 The case of Tiberius declining to implement sumptuary laws is particularly telling. In 22 CE, the aediles led by C. Calpurnius Bibulus complained to the senate that sumptuary regulations were being ignored and that prices of luxury goods were rising daily. The senate referred the complaint to Tiberius. In his letter of reply, the *Princeps* explained that legislation on such private matters would be useless and counter-productive: ‘for on what should I make my first effort at prohibition and return to the ancient standard? On the infinite expanse of our villas? The numbers – the nations – of our slaves? The weight of our silver and gold? The miracles of bronze and canvas? The promiscuous dress of male and female – and the specially female extravagance by which, for the sake of jewels, our wealth is transported to alien or hostile countries?’ (*‘atque illa feminarum propria, quis lapidum causa pecuniae nostrae ad externas aut hostilis gentis transferuntur*’) (Tac. *Ann.* 3.53). The expression ‘*externas aut hostilis gentes*’ was by no means ambiguous. Anyone would understand that Tiberius hinted at Arabia and India, two countries supplying the Roman world with highly demanded commodities. By referring to the gemstones demanded by women, Tiberius particularly pointed to Indian Ocean pearls, of which no one could stop, or reduce the consumption.

- 65 See Ael. *N. A.* 10.13: 'It has a naturally smooth and well-rounded contour (φύσει δὲ ἔχει τῆς περιφερείας τὸ λεῖον καὶ εὐπερίγραφον).'
- 66 *Digest.* 34. 2.25.11 (Mommson 2, p. 153 [*Ulpianus libro quadragesimo quarto ad Sabinum*]).
- 67 Warmington (1928): 170.
- 68 Ogden (1992): 54
- 69 Kunz and Stevenson (1908): 378–379.
- 70 Plin. *HN* 9.112. Also see Plin. *HN* 9.109: 'Nevertheless even they get yellow from age and doze off with wrinkles, and the vigour that is sought after is only found in youth' ('*Flavescent tamen et illae senecta rugisque torpescunt, nec nisi in iuventa constat ille qui quaeritur vigor*').
- 71 *Pap. Holm.* 60. Also see *Pap. Holm.* 25 ('Whitening of a pearl. A dark pearl is made white by the following method. Give it to a cock to swallow, cut him open immediately, and you will find that the pearl has become white').
- 72 Plin. *HN* 9.108.
- 73 I.e., a good pearl.
- 74 Plin. *HN* 9.108.
- 75 Kunz and Stevenson (1908): 375–377.
- 76 Plin. *HN* 9.108.
- 77 Ael., *N. A.* 10.13.
- 78 Ael. *N. A.* 10.13.
- 79 Holleran (2012): 51.
- 80 Firmicus Maternus, *Matheseos*, vol. 1, 4, 13, 1; vol. 1, 3, 12, 10.
- 81 Tassini (1994): 691.
- 82 *CIL* 6.9545.
- 83 *L. Calpurnius Nicaei f. Antiochus* (*CIL* 6.9546); *Domitia Cn(aei) [l(iberta)] margari[taria]* (*CIL* 6.5972) – the only woman known to us. See Tassini (1994): 691–692.
- 84 Pérez González (2014): 273–74. About the *Saepta*, see Holleran (2012): 249–250.
- 85 Holleran (2012): 249–250.
- 86 Martial 9.59.2.
- 87 *Notitia reg.* VIII.29; *Curiosum reg.* VIII.31. On the possible locations, see Pérez González 287–280.
- 88 See Firmicus Maternus, *Matheseos*, vol. 2, 8, 16, 3 (*has omnes artes ingeniosa conversatione tractantes*).
- 89 Suet. *Diu. Jul.* 50.2.
- 90 Plin. *HN* 9.116. This weight equals 234¼ grains.
- 91 Suet. *Vit.* 7.2.
- 92 *CIL* 6.41062; Durry (1950): 13.

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8 India abroad

Evidence for ancient Indian maritime activity¹

Frederick M. Asher

For traditional Indian belief as presented in texts such as the *Laws of Manu*, creation started with the sea. That is, the Self-Existent Being first created waters, and from the waters came Brahmā, the agent of creation. Yet despite the reverence held for the waters, or perhaps because of it, this very same text, and others as well, offer strong admonitions against going to sea. People not worthy of engaging in oblations to the gods and spirits include those who undertake voyages by sea, as well as a host of others, among them sellers of meat, actors, and even temple priests.² The laws, as they are commonly translated, read like an attempt to create an order, a rigid one that cedes control to Brahmins in an Indic world of tensions between priest and king, between secular and sacred authority. Similarly, and probably earlier, the *Baudhayana Dharmaśāstra* asserts that making voyages by sea (*samudrasamyānam*) causes a loss of caste, although it does offer a rather harsh penance to rectify this offence.³ Both admonitions, of course, indicate that Indians in ancient times did undertake sea voyages, for why would there be such an admonition if not directed at those deemed guilty by the composers of these texts, composers who held merchants in about the same contempt as mariners?⁴

Despite the textual admonitions, Indians in pre-modern times clearly did travel to distant places, as the material evidence shows, confirming non-Indian written accounts of Indians abroad. Generally cited as the earliest evidence for Indian maritime trade are ships depicted on Harappan seals datable to the second half of the third millennium BCE. One might argue that these seals show foreign boats that had come to Harappan ports, or that they are boats used for riverine travel, not ocean sailing. But it seems far more likely that Harappan boats did sail the ocean, almost certainly to the west, where there is clear evidence of Harappan presence distant from the Indian subcontinent. On Bahrain, for example, Rafiq Mughal is said to have discovered Harappan seals at Kajjor and Buni, and Elizabeth During Caspers cites a metal animal from Bahrain that she argues is of Harappan origin.⁵ Harappan seals also have been discovered at Mesopotamian sites.⁶ But do these objects demonstrably prove that Harappans travelled to these places, much less that they did so by sea? While there is a likelihood that Harappans did carry at least the seals – they would be of little value, I imagine, to a Mesopotamian if they served as a device for personal identification – we cannot say with certainty that the Harappans travelled by sea, least of all that they did so on Harappan ships.

Fast forward, then, to the beginning of the Common Era, when Indian inscriptions on potsherds have been found as distant from India as Egypt and Thailand. One inscription in Tamil Brahmi was found at Quseir al-Qadim in Egypt, while another was found at Berenike, also in Egypt. A third Tamil Brahmi inscription of about the same date was found at the Khor Rori area in Oman, and far to the east of India, a Tamil Brahmi inscription was discovered on Thailand's Andaman coast.⁷ Since, however, all these very brief inscriptions were found on shards of storage jars, we may ask whether they were carried on Indian ships by Indian sailors and merchants, or whether they were used to carry Indian goods traded to non-Indian merchants who docked at Indian ports. The evidence, in other words, supports only Indian trade by sea, not Indian *traders* at sea.

That is also the case with Indian textiles found in Egypt. In Egypt's dry climate, several textile fragments of Indian origin were found at Berenike datable to the first five centuries CE,⁸ while later Indian textile fragments in very large numbers were excavated at Quseir al-Qadim in Egypt.⁹ But again, the presence of these textiles does not indicate how they reached Egyptian ports. It is just as likely that they were carried by Alexandrian, Roman, or – in the case of the later finds – Arab craft, as by Indian ships with Indian crew. Certainly, foreign traders, even on Indian soil, used non-Indian ships, as we learn from the Cairo Geniza documents, although one letter of the Jewish merchant ben Yiju refers to a 'Nambiyar', very probably a Hindu Indian.¹⁰ Nonetheless, as Ranavir Chakravarti shows, inscriptional records indicate clearly that there were both ship owners and ship captains on India's west coast, the area of his study. For example, he cites a record of 1084 in which a high-ranking officer in the court of King Anantadeva was called a *nauvitaka*, more properly, a *nauvittaka*, which he defines as one whose wealth is derived from ships.¹¹ That does not mean that this officer ever went to sea, but at least he likely owned ships, although it is possible that he was simply a wealthy trader. But that same record does exempt sailors on coastal ships from taxation that normally would be imposed on such sailors.¹² Still more interesting, though, are the accounts of pilgrimage undertaken by sea from India's west coast, particularly to the site of Somnath.¹³ Long though the voyages were, however, they still hugged the coast since Somnath is on the Gujarat coast.

We do, however, have strong evidence of Indians travelling long distance by sea. The earliest evidence comes in the form of a great many inscriptions in Cave Hoq on Socotra Island, today part of Yemen but located over 300 km from the Yemeni coast and somewhat closer to the Horn of Africa. The cave was probably known before 2000, but it was not until that year that it was recognized by scholars for the amazing epigraphic record it held: some 219 brief inscriptions dating, on the basis of the epigraphic style, from the second to fifth century CE.¹⁴ Among them, the vast majority were Indian, 192 written in Brahmi script, one in Kharoshthi. They are names, little more than that, some giving a father's name and a very few the home village or town or profession, including three who designate themselves *navika*, that is sailors. But the names themselves are clearly and unquestionably Indian, surely left by merchants and sailors who may have used the cave while waiting for favourable monsoon winds. The names suggest adherents of all of India's faiths.

So Indians certainly did travel, even perhaps two Brahmins among those who left records in Cave Hoq.¹⁵

Indian mariners sailed eastward as well and left written records of their arrival. An inscribed stone slab discovered somewhere in the south Kedah region of Malaysia refers to the Mahānāvika, that is, the great sea captain, Buddhagupta, who comes from Raktamritika.¹⁶ Although the inscription is written in a south Indian style script datable to the fifth century CE, Raktamritika has been identified with Rajbadidanga in West Bengal.¹⁷ In the end, it probably makes little difference where Raktamritika was; it almost certainly refers to some place in India, an indication that Buddhagupta did sail – in fact, that he served as captain of a ship, very likely with other Indians among the crew. If Woodward and others following him are correct in placing Buddhagupta's home in Bengal, then the south Indian style of the script suggests that there was a resident community of Indians, a trade diaspora, in coastal Malaysia by the fifth century CE that included a scribe of south Indian origin. The only alternative I can imagine, a far-fetched one, would be that the inscribed slab and a remarkably similar one with only the Buddhist creed but no name found in 1980 in Sungai Mas,¹⁸ a site also in Kedah, were carved in India and for some inexplicable reason exported to the Kedah region of Malaysia. Unlike tombstones which apparently were carried by Arab ships to serve as ballast, these two slabs are not heavy enough to be effective ballast for a ship.¹⁹

These two slabs are among a great many found across coastal South East Asia that carry Sanskrit inscriptions written in south Indian-style Brahmi script. From about the same time – that is, the fifth century – we have seven stone sacrificial pillars (*yupa*) in the Kutei region of East Kalimantan on Borneo. They record a sacrifice conducted by Brahmins for someone with the distinctive Indic name Rajendra Mulavarman.²⁰ Maybe even earlier, some would date it to the second or third century CE, is the Stele from Vocañh, near Nha Trang on the coast in present-day Vietnam.²¹ It bears a Sanskrit inscription written in Brahmi script that refers to a king who had the distinctively Indian name Srimara-raja. That means, of course, that someone in the region that today comprises Vietnam knew enough Sanskrit to compose the inscription and knew Brahmi well enough to write it. Despite the language and script, however, the inscription has nothing whatever to do with India. Rather, it refers to the gift, or tribute, of white elephants offered by the king to the Chinese court. So by this time, an Indian language and script had become a sort of lingua franca across South East Asia. That is made clear also by inscriptions from present-day Cambodia, where, for example, an inscription of the fifth or sixth century CE from Neak Ta Dambang Dek by Queen Kulaprabhavati, a devotee of Vishnu, proclaims her love for her husband, King Jayavarman.²² It is written in Sanskrit, using the lovely flourishes of Pallava Brahmi script, and the names of the queen and king are unquestionably Indic, as is, of course, the queen's faith. Yet nothing in this inscription, or the many other Sanskrit inscriptions from Cambodia, suggest ties to India. They are clearly rooted in Funan, as the Chinese described this region, and do not indicate the presence of a resident Indian community.

How did this language and writing system make such widespread and remarkable inroads in this enormous region? One step toward answering this is to

understand how trade worked in the ancient Indian Ocean. Traders with their boatloads of goods did not simply show up on unfamiliar shores and hope to profit by unloading their goods to purchasers with whom they could not communicate. Rather, resident communities of foreign merchants served as cross-cultural brokers, intermediaries between the newly arrived ships of their countrymen and the indigenous merchants of the culture in which they had settled.²³ These trade diasporas knew the local traditions, they knew what the local population would want, and they knew fair prices. Those from India already had writing and numerical systems essential for accounting. To them, preserving records was critical in order to maintain accounts of debits and sales, probably explaining the abundant early Indian written records proclaiming religious donations, inscriptional records that often bear dates on religious gifts from Buddhist and Jain merchants. Written records were critically more important to them than they were to Brahmin priests, for whom memorization was an essential way of preserving and selectively sharing knowledge.

For western Asia, written records were not especially novel. From Alexandria through Arabia and Iran, there long had been writing systems in place and excellent accounting records. So the Indian system, except for the decimal system with zero as a place-holder, would hardly be innovative or attractive. Nor, I imagine, would the religious systems that these traders might have maintained in western Asia been especially attractive as competition for their own, systems that had written texts to serve as the foundation for belief.

But in South East Asia, there was no earlier writing and numerical system, at least none that has been preserved to the present. So we can easily imagine that both the diasporic Indian communities in South East Asian ports had enviable knowledge. Their writing system and the *lingua franca* that went with it, Sanskrit, would prove essential to monarchs across the region, who needed to tax the arriving – and, possibly, the departing – goods, and so would need inventories of the goods traded and a means of calculating the tax on them. We know, of course, that trade goods were taxed.²⁴

The Indian system worked effectively for the traders, and so, as we try to imagine how it came to be adopted in South East Asia, we can guess that it was adopted locally. Philip Curtin notes, for example, that the cultural differences that necessitated cross-cultural mediation were reduced in time, sometimes just decades, so the mediators ‘worked themselves out of business’.²⁵ But as they did, they certainly left a legacy that extended way beyond a writing and accounting system, extending to a way of life that included adoption locally of the religions practiced by the Indian traders. Thus early on we see not just inscriptions written by or on behalf of Indian traders such as the ship captain Buddhagupta, but local monarchs and others professing Indian religious practices, for example, the erection of sacrificial pillars in the Kutei region of East Kalimantan.

But how do we get from written practice to visual practice? That is, how did newly minted Buddhists and Hindus, to use a broad generic term, know how images and the temples to house them ought to appear? I would suggest that small figural and temple images served as the models, and I might add the possibility of

temples actually constructed in trade depots by merchant communities. For example, a very small black stone stupa, about ten inches high and carved with images of the Buddha on each of four sides, was found in the Kedah region, almost surely an import from eastern India, perhaps brought by someone who sailed from Tamralipta, as the fifth-century CE Chinese Buddhist pilgrim Faxian did as he set off for Sri Lanka en route back to China. Prior to sailing, he had spent two years at monasteries in Tamralipta copying sutras and 'drawing pictures of images'.²⁶ A small standing Buddha, just about 6.5 inches high and datable to the sixth century CE, was found from Wiang Sa in Suratthani Province, Thailand though very likely a work from northern India, so close is it to the style of Sarnath.²⁷ A small bronze standing Buddha also dating to about the sixth century CE and very probably of Indian origin was found in the Pongtuk sub-district of Tha Ma Ka District, Thailand and is, like the Wiang Sa Buddha today, in the National Museum, Bangkok. These are among the works that have survived because they were made in durable material such as stone or bronze. But there is ample evidence of works made in more ephemeral materials, for example, in Chinese accounting of tribute from places in South East Asia that note ivory and wooden stupas that John Guy speculates originated from India.²⁸ Still other small works such as a bronze standing Buddha 8.5 inches high from the Bujang Valley in the Kedah state of Malaysia is of such ambiguous origin that either it is an import from India or so closely modelled on Indian works that it represents a local South East Asian adaptation of Indian works, the beginning of a transformation from reliance on imported objects to indigenous production.²⁹

If easily transported small sculptures explain the origins of sculptural styles and iconography in South East Asia, how did Buddhists and Hindus in the region learn how a temple might appear? It would be little short of colonialist to imagine Indians instructing the newly converted how to construct a temple. That might suggest the sort of patronizing approach to the newly converted Christians in the New World. But I am not at all persuaded that the parallel with that sort of conversion by European Christians is a useful model for understanding the adoption of Indian religions and their visual components, that is, images and the temples to house them. Rather, I see an entirely different way in which the religions were adopted in South East Asia. The merchants who settled in trade depots on coastal parts of the Indian Ocean possessed something that indigenous rulers and their nobles might want: writing and accounting systems. They also had, little doubt, priests and others intimately knowledgeable about the faiths. So I see a willing adoption of the religions along coastal South East Asia and a desire to acquire the material accoutrements of the faith.

The evidence for temple models is later than the earliest surviving temples in coastal South East Asia, but it serves nonetheless as a means for thinking about how visual ideas were transmitted in the pre-modern Indian Ocean world. A number of small, portable models of the Mahabodhi temple, the temple at the site of the Buddha's enlightenment, Bodhgaya, are housed in museums, some of them outside of India. They likely were taken from Bodhgaya in the course of pilgrimage and served as models for full-scale temples in several Indian Ocean countries: Myanmar,

Thailand and China.³⁰ These, however, date to the ninth or tenth century CE, with some even later. But they raise the possibility of earlier small-scale temple models that might have served as the basis for temple forms across South East Asia.

The remains of at least one large Hindu temple in a distinctively Indian style survives in parts in the maritime port of Quanzhou in China. This almost surely is the temple recorded in an inscription dated 1281 CE, an inscription in Tamil, with a final line in Chinese, celebrating the construction of a temple dedicated to the Hindu god Shiva and provided by an Indian merchant guild resident in the trade depot at Quanzhou.³¹ Many sculptural remains of the temple are preserved in the Quanzhou Maritime Museum, while some pillars from the temple are built into the Kaiyuan Buddhist temple in Quanzhou. The inscription proclaims the patronage of someone named Sambandar Perumal, almost surely a Tamil merchant guild member, and resident in Quanzhou, perhaps there so long that the inscription, either because Sambandar was appropriately diplomatic or perhaps himself bilingual, includes a Chinese coda. And it pays homage to the Yuan Dynasty authority Chekachai Khan, probably Kublai Khan or his son Jurji. The sculptures are so close in appearance to Indian Chola Dynasty works that there is reasonable debate regarding their authorship: were they made by Indian sculptors who had travelled to China, much as south Indian sculptors today travel the world to produce temples and their sculptural adornment for the Indian diaspora community, or were they made by Chinese sculptors working under the mentorship of at least one Indian master? I am inclined to opt for the latter perspective.

Although few other material remains testify to Hindu and Buddhist expatriate communities in the eastern part of the Indian Ocean, ample literary sources confirm their existence well before the Quanzhou temple of 1281 CE. For example, during the Yongxi period of the Northern Song Dynasty (984–988 CE), an Indian Buddhist monk purchased land in the southern part of the city to build a Buddhist shrine.³² And still earlier, in the ninth century CE, several sculptures were discovered at Phra Narai on the Takua Pa River in Thailand, ones associated with an inscription recording the dedication of a tank called the Sri Avani Naranam, a name that has been linked to the Indian Pallava Dynasty ruler Nandivarman III (826–850 CE).³³ One early writer, W. Walter Bourke, describes these sculptures as ‘Indian Remains’,³⁴ while others quite appropriately, are far less certain of the sculptors’ cultural identity.³⁵ Regardless of the sculptors’ cultural identity, these large figures, the largest about two meters in height, suggest that there was a temple to house them, one that, I would speculate, very much resembled a Pallava-period temple in India. And still earlier, in the seventh century CE, a Chinese record notes so many Indians resident at the port city of Guangzhou (formerly called Canton by Europeans and Americans) that they maintained three monasteries where Brahmins were residing.³⁶ I assume these were Buddhist monasteries, although others take the structures as ‘almost certainly Hindu’.³⁷ The specific affiliation, however, makes little difference. If the written source is taken seriously, here again we have a direct reference to an Indian religious structure that no longer remains, not even in traces. I thus imagine that these references suggest a great many other Indian temples across the eastern part of the Indian Ocean, ones that have left no visible



Figure 8.1 Relief from the Hindu temple of 1281 now incorporated in the Kaiyuan temple, Quanzhou, China (photo courtesy of Frederick Asher)



Figure 8.2 Copy of the Vishnu image dedicated by an Indian merchant community at Khao Phra Narai, Takuapa, Thailand. Original in the Thalang National Museum, Phuket, Thailand (currently under renovation) (photo courtesy of Frederick Asher)

signs. They are not recorded in written sources because there was no need to do so. Such structures, which likely served as the model for local variants produced in increasingly indigenous styles, were sufficiently part of the coastal landscape that there was no need to record them. They simply were not remarkable.

So despite admonitions against travel by sea, Indians did travel, and the impact of doing so did much to shape the visual culture of South East Asia.

Notes

- 1 I take the title for this chapter from the US newspaper, *India Abroad*, published for the Indian-American population.
- 2 Bühler (1886): chapter 3, verses 150–166.
- 3 *Baudhayana Dharmasutra*, Prasna II, Adhyaya 1, Kandika 2, verses 1–10.
- 4 Ibid., verse 5, ‘Trading with merchandise of any description (whether forbidden or not)’.
- 5 Khalifa and Rice (2010): 74; During Caspers (1987): 30–46.
- 6 Chakrabarti (1990): 210.
- 7 Salomon (1991): 731–736; P. Shanmugam (2009): 208–226.
- 8 Wild and Wild (2005): 11–16.
- 9 Burke and Whitcomb (2004): 82–97.
- 10 Gotein and Friedman (2008): especially chapter 3, ‘Select Studies on Shipping and Travel’. For the letter of ben Yiju see p. 148.
- 11 Chakravarti (2000): 41.
- 12 Ibid., 42. The inscription is presented and translated by Mirashi (1977): 115–120.
- 13 Chakrabarti (2000): 42–43.
- 14 Strauch (2012): 17–19 for the cave’s discovery and importance.
- 15 Strauch (2012): 358–360.
- 16 Jacq-Hergoualc’h (2002) notes the vague identification of the inscription’s provenance, that is, the place of its discovery by J. Low in 1834. The slab was deposited in the Indian Museum, Kolkata, although the curatorial staff cannot now locate it. A replica is housed in the Lembah Bujang Archaeological Museum.
- 17 Woodward (2003): 40. However, earlier, Chhabra (1935): 16–20, accepts the earlier identification of Raktamritika with a port on what he calls the Gulf of Siam (now the Gulf of Thailand) that is known from Chinese sources and shares a meaning, ‘Red Earth’, with the name Raktamritika.
- 18 Wisseman (1988–89): 39–53.
- 19 Kalus and Guillot (2004): 17–36.
- 20 Chhabra (1935): 37–44.
- 21 Coedès (1940): 484; Zakharov (2010): 17–21.
- 22 Inscription is in the Cambodia National Museum, Phnom Penh, accession number Ka3077 / Inscription K.875.
- 23 For a more detailed description of the process see Curtin (1984): 1–12.
- 24 See, for example, de la Vaissière (2014): 101–124.
- 25 Curtin (1984): 3–4.
- 26 Legge (1886): 100.
- 27 DSC03686.
- 28 Guy (2014): 7–8.
- 29 Guy (2014): 75, cat. 20.
- 30 Asher (2012): 61–76.
- 31 Guy (2001): 295–302 for the inscription and remains of the temple. This temple is discussed in considerably greater detail by Lee (2012).
- 32 Zhao Rugua, *Zhufanzhi*, quoted by Guy (1994): 291–310.

33 Guy (2011): 250.

34 Bourke (1905): 55–57.

35 For example, Guy (2011): 250, who says, ‘we can only speculate on the identity of the artisans.’

36 Guy (2011): 287.

37 Guy (2011): 287.

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Part 3

The Indian Ocean influence on literary culture



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9 The universe from an egg

Creation narratives in the ancient Indian and Greek texts

Fiona Mitchell

As the other articles in this collection show, there is an increasing interest in and awareness of the connections between India and Greece in Antiquity. Several of the other authors in this collection have shown the ways that trade provided the opportunity for interactions between these areas at various different times. These economic connections also allowed for cultural connections and trade between India and the Graeco-Roman world. One of the types of cultural trade that appears to have occurred is the transmission or sharing of mythological narratives. This chapter focuses on narratives about the emergence of the universe from an egg that appears in both the Greek and Indian traditions.

In studies of Greek literature, there has been much exploration of the transmission of myths between Greece and the Near East. However, it is increasingly apparent that this type of cultural interaction did not just take place between immediate neighbours, but that trade networks and interpersonal connections allowed this sort of exchange to take place in a broader area. In her exploration of the transmission of creation narratives from the Near East to Greece, López-Ruiz discusses the methods of transmission. While focusing on the oral nature of the transmission of narratives, she highlights the importance of transmission on a personal level through foreign settlers within Greek areas, Greek colonies, foreigners resident in Greek households, migration occurring as a result of political pressures, and authors of mixed heritage.¹ While this type of oral transmission is largely invisible to us now, it seems extremely unlikely that, when people and items were moving between different parts of the ancient world for trade, these meeting points were not also a conduit for ideas and information. Thus the economic trade between the Graeco-Roman world and India would have also provided such an opportunity for cultural transmission.

Exploring the myths that were shared by different parts of the ancient world or transferred between them can reveal more of the ways that these areas interacted. Taken alongside archaeological and literary evidence for economic trade, evidence of cultural transmission develops a stronger picture of how the ancient world shared ideas. Mythological narratives are particularly useful in this regard. These stories are retold and reused because their telling has some use or value for the creator and the audience; they fulfil some useful function in exploring the nature of the world. Seeing how certain mythological narratives manifest at different times and in

different locations can show how specific ideas shift. Creation narratives, in their exploration of the origins and nature of the universe, are teleological since the perceived nature of the current universe impacts on the way that we believe it came about. These stories therefore focus on the nature of the divine and the time and space in which the universe exists. So by examining these narratives in Greek and Indian texts, we can build up a picture of the types of ideas that were transmitted around the ancient world.

There is a series of narratives in the ancient Mediterranean, Near East and India that explain the origins of the universe through the splitting of an egg. The opening of the egg leads to the creation of the physical world; often the primary creator deity or demiurge is created at the same time. It is not just the idea of the creation from the egg which is similar in these texts, but several of the details of the way this narrative is told indicate a correspondence. In most of these cosmogonic narratives, the primary creator or the egg, or both, are golden or shining. The moment of the deity's birth from the egg is that in which the physical cosmos becomes manifest, through illumination or by the egg's shell becoming the parts of the physical world. The creator is often simultaneously displays male and female characteristics, and is somehow imperceptible to the senses. Ideas of time are strongly connected with this narrative, including frequent representations of the cyclical construction and destruction of the universe, or time as a personified creative power. By looking at this myth we can gain insight both into the connections between Greece and India at different times in antiquity, and into the Greek and Indian ideas about the origins of the universe, the nature of time and how the two interact to allow the development of the cosmos into its current form.

Elements of this narrative appear before direct contact between Greece and India, in Aristophanes' *Birds* and the *Rigveda*. After contact between these regions, there are Indian and Greek texts which contain very similar narratives. In particular, the *Laws of Manu*, the *Vishnu Purana* and the *Matsya Purana* parallel the narrative in the Orphic theogonies closely, indicating a shift as a result of closer contact between these areas. I am taking the date of the beginning of sustained direct contact between Greece and India to be the invasion of Alexander in 327 BCE. This is a somewhat crude measure, since information will not have suddenly flowed freely between the two regions from this date. There will necessarily have been mediated contact before this time with an increasing amount of information available to Alexander and his army to allow a military attack. This will not have been one-sided. Similarly, the subsequent years would have been a period of increasing knowledge on both sides. This is demonstrated by the authors writing about India in Greek. For example, Ktesias, writing in the mid-fifth century BCE was aware of the existence of India, but wrote about the location as a largely mythological space. Megasthenes, writing towards the end of the fourth century BCE, appears to have visited as an ambassador and has a greater amount of information about India and its societies (albeit in a faulty manner). Thus 327 BCE cannot be taken as a point at which information flowed freely and accurately, but it does indicate the beginning of a sustained period of contact between the Greek and Indian worlds, leading to greater cultural interaction.

The transmission of similar myths between different cultures does not indicate that the stories that appear in Greek and Indian versions have the same functions or cultural contexts. The transmission of some ideas or narrative formats can occur without the readings of the texts being identical. Hopman's description of the way that specific mythological figures can have significantly different representations which incorporate certain key similarities can be applied to mythological narratives as well. In *Scylla*, Hopman argues that instead of thinking of characters within myth as 'figures', we should instead view them as 'complex signs' which carry with them certain associations that can be used in different ways.² She demonstrates this idea by examining the different representations of Skylla and her associations with the concepts of the sea, dogs and women, despite significant differences in her physique in the myths surrounding her.³ Similarly, myths do not move wholesale between cultures or even tellings; certain key figures, elements, or narrative actions can be retained while the cultural context and parts of the narrative shift. Thus myths become integrated into the cultures which take them on. In order for this to occur, there must be some use or familiarity for them to be adopted into a culture; a completely alien narrative would not 'stick'. This capacity for myths to be adopted and adapted by a culture also allows for them to be returned in a somewhat changed form. The transmission of narratives does not therefore occur in a single direction, but allows for a reciprocal exchange. This does simply occur between one culture and another in isolation; the connections between various regions of the ancient Mediterranean, Near East and Indian subcontinent in antiquity would have allowed for this to occur in different directions at different times.

Thus this chapter explores the representations of creation narratives which use the image of an egg in the early stages of the creation of the universe in order to examine both the connections between different regions of the ancient world and the types of information or ideas that were exchanged.

Pre-contact creation narratives

Creation narratives involving eggs appear in sections of the *Rigveda*. This collection of hymns was an oral composition, so it is difficult to pin down an exact date for its creation. While approximations are made which argue for its composition at dates between 3000 and 1000 BCE, a majority of scholars place the composition between 1500 and 1000 BCE.⁴ The part of the text in which creation narratives using an egg appear is Mandala (i.e. book) 10, which is part of an addition to the text later in this period. However, this still places these narratives significantly before any direct contact between Greece and India.

As the *Rigveda* is a collection of hymns relating to different deities and composed at different periods, there are several narratives of creation within it. One of those containing a reference to an egg in the process of creation is hymn 10.121. This hymn contains ten verses, the first nine of which end with 'Who is the god to whom we should do homage with our oblation?'⁵ The final verse answers with 'Prajāpati', a deity associated with creation in Mandala 10.⁶ This final verse appears to be a late addition, indicating that there was previously a more questioning tone to the hymn.⁷

However, even if the name of the creator god is not certain here, this deity is still connected to these narratives about eggs because in the first verse he is addressed using the term ‘Hiranyagarbha’. The term is generally translated as ‘golden embryo/foetus’ here, but can in other instances appear to be used to mean ‘golden egg’, as will be seen in some of the later examples.⁸ Indeed, the representation of the creator in connection to a gold and shining moment or medium of birth appears repeatedly.

There is second hymn in the *Rigveda* which shows connections relevant in the later texts. Hymn 10.72, which focuses on the emergence of the gods, refers to a figure called ‘Mārtāṇḍa’, meaning ‘dead egg’:⁹

8. Eight are the sons of Aditi, which were born from her body.

With seven she went forth to the gods. She cast away the one stemming from a dead egg [Mārtāṇḍa].

9. With seven sons Aditi went forth to the ancient generation.

For procreation but also for death, she brought here again the one stemming from a dead egg.

(*Rigveda* 10.72.8–9)

Mārtāṇḍa is a deity associated or identified with the sun.¹⁰ So, within this same Mandala, there is another representation of the birth of a deity from an egg. In this case, the deity does not emerge from an egg, but is identified with it. This association between the deity within the egg and the sun becomes more apparent in some of the later narratives around the egg.

Both of these hymns have elements in common with the narratives about the egg creating the universe, but do not share a larger narrative structure. Beyond the references to a shining birth and to the creation and holding apart of the heavens and the earth (e.g. 10.121.1, 4, 5 and 9), there is not a broader connection. However, these elements are significant in the way they are adapted and absorbed into the later narratives of creation from an egg.

The earliest example of this type of narrative in Greek texts can be found in Aristophanes’ *Birds*, which was performed at the City Dionysia in 414 BCE. The play provides a comedic creation narrative when, after being persuaded that they had been usurped from their power by the Olympians, the leader of the chorus of birds provides this cosmogony, confirming their position as the creatures deserving power and devotion:

Χάος ἦν καὶ Νύξ Ἐρεβός τε μέλαν πρῶτον καὶ Τάρταρος εὐρύς,
γῆν δ’ οὐδ’ ἀήρ οὐδ’ οὐρανὸς ἦν· Ἐρέβους δ’ ἐν ἀπείρουσι κόλποις
τίκτει πρῶτιστον ὑπηνέμιον Νύξ ἡ μελανόπτερος ὦν,
ἐξ οὗ περιτελλομέναις ὥραις ἔβλασταν Ἔρωις ὁ ποθεϊνός,
στίλβων νῶτον περυγῶιν χρυσαῖν, εἰκῶς ἀνεμῶκεσι δίναις.
οὗτος δὲ Χάει περόνεντι μίγεις νυχίῳ κατὰ Τάρταρον εὐρὺν
ἐνεότευσεν γένος ἡμέτερον, καὶ πρῶτον ἀνήγαγειν ἐς φῶς.

πρότερον δ' οὐκ ἦν γένος ἀθανάτων, πρὶν Ἐρως ξυνέμειξεν ἅπαντα·
ξυμμιγνυμένων δ' ἑτέρων ἑτέροις γένετ' οὐρανὸς ὠκεανὸς τε
καὶ γῆ πάντων τε θεῶν μακάρων γένος ἄφθιτον. ὧδε μὲν ἔσμεν
πολὺ πρεσβύτεροι πάντων μακάρων.

First there was Chaos, Night, dark Erebos and broad Tartaros, but neither earth nor air nor sky existed. In the limitless depths of Erebos, black-winged Night produced the very first wind-egg,¹¹ from which, after the cycle of ages, Eros, full of longing, came forth, with a back of glittering, golden wings and the likenesses of a swift whirlwind. At night he mixed with winged Chaos within broad Tartaros, and so hatched our race and first led it up into the light. The race of immortals was not first, before Eros mixed everything together. One mixing with another, heaven and ocean and earth and the race of all the deathless gods was produced. Thus we are much older than all the blessed gods.

(Aristophanes *Birds* 693–703)¹²

At first glance, the theogony described by the chorus leader seems to have strong correspondences to the Hesiodic cosmogony through its description of the early emergence of Chaos and Tartaros, and the use of sexual reproduction to create the new generations of gods. The addition of the egg and the winged primordial entities might appear to simply be a more avian version of this narrative, which would suit the purposes of the cosmogony's narrator. However, it is in this focus on the bird-like features of eggs and wings that some of the key elements of the narrative about the creation of the universe from an egg appear. For example, not only is there the emergence of a winged creator deity from an egg, but Eros has wings that are 'glittering, golden' (στίβων . . . χρυσαῖν, 697). Additionally, there is a hint of the idea of creation as an emergence into light, although here it is the race of birds, not the cosmos, that does this: '[Eros] first led [the race of birds] up into the light' (καὶ πρῶτον ἀνήγαγεν ἐς φῶς, 699). There is also a description of time involved in this cosmogony, albeit a subtle one. Eros comes into being once the egg has been produced and after 'the cycle of ages' (περιτελλομέναις ὥραις, 696). Time is not personified here, nor the egg's producer, as it is in some instances of the narrative, but time is explicitly required in order for the deity within the egg to come into being and so manifest the physical world, and so has a role in the development of the cosmos.

The creator deity here is clearly one associated with fecundity and sexual procreation. Eros' connection to sexuality is emphasised in his epithet ποθεινός ('full of longing', 696). However, he is produced from a wind-egg, i.e. an egg that should be infertile. Night has produced this egg parthenogenically, making sense of the egg being an infertile 'wind-egg': an egg produced solely by the mother, and therefore not fertilised, would not be expected to hatch. However, Eros is clearly the deity which began the sequence of sexual unions that produced the gods by his own sexual union with Chaos (698). Thus, although he emerges from an asexual birth, Eros begins the process of the creation of the cosmos through his sexuality.

The number of elements in the *Birds* that connect with the narrative about the egg, particularly in the Orphic theogonies, indicates that this comedic version of the cosmogony is not simply an avian twist on the creation story of the type found in Hesiod. Rather, ideas about the creation of the universe from an egg existed in Greece prior to direct contact between Greece and India. The fact that Aristophanes uses this narrative potentially indicates that it was sufficiently well-known to be worth including in this popular form of entertainment. It would not need to be universally recognisable for the joke to work. But the humour of the cosmogonic account relies on the idea of these birds' false superiority. This might be more effective if the narrative had some familiarity: the audience would be able to see the attempts at intellectual and social superiority of these animals associated with a lack of intelligence.¹³

The passages above show that there are stories about eggs as part of creation narratives in both Greek and Indian texts, although there are clearly significant differences between in their content and uses. While both have religious contexts, the hymns from the *Rigveda* have a much more devotional tone, and the *Birds* an irreverent one. Certain similarities – the image of the egg, the shining egg/creator, the beginning of the physical world – indicate a possible connection between the two. However, the image of an egg as part of creation could be general enough to be coincidental: the emergence of a bird from an egg as an image of the emergence of life is potentially universal. So the independent development of this narrative in the Greek and Indian traditions before sustained contact between these regions cannot be ruled out. There is, however, a strong possibility that this narrative developed elsewhere and was transmitted to Greece and India.

The connection of both Greece and India to Persia has been posited as a possible reason for the correspondences between aspects of religious or philosophical thought in these two regions in antiquity.¹⁴ Since the Achaemenid Empire reached from Anatolia to the Hindu Kush, it seems highly likely that there were channels for cultural transmission within the empire. The administration of an empire necessarily requires communication between different regions;¹⁵ these political and administrative channels would also have provided an opportunity for other types of information to flow between areas of the region.

This connection to Persia has been used to explain elements of both the Greek and Indian narratives. For example, Brisson points to the Orphic theogonies as being influenced by Iranian precedents.¹⁶ Also, Jamison and Brereton argue that the *Rigveda* 'stands at the end of a long tradition of Indo-European and Indo-Iranian praise poetry, most nearly mirrored in the Old Avestan Gāthās attributed to Zarathustra'.¹⁷ This influence might extend to the narrative of the egg. Boyce, in her work on Zoroastrianism, suggests a reconstruction of an Iranian mythology which pre-dated it:

The gods had created the world in seven stages; first the 'sky' of stone, as a huge round shell to enclose all else; second, in the lower half of this shell, water; third, earth, resting on the water like a great flat dish.¹⁸

If this reconstruction is accurate, the similarity of the narrative could indicate that elements of it were transferred into the Greek or Indian traditions.

Persia may have acted as a medium for transmitting some of the ideas. However, there is clear evidence for a precedent in Egypt.¹⁹ An example of the creation narrative involving the creator deity emerging from an egg appears in the Coffin texts, which date to the twenty-first century BCE:

I am Nu, the Sole One who has no equal, and I came into being yonder on the great occasion of my flood, when I came into being. I am he who flew up, whose shape is (that of) *Ḍbnn* who is in his egg; I am he who originated in the Abyss, and see, the Chaos-god came out to me; see, I am hale. I brought my body into being through my power; I am one who made myself, and I formed myself at my will according to my desire. What went forth from me was under my supervision; it means that tears are what I created in him who was angry with me, and men of the blind ones are my cattle.

(*Spell 714*)²⁰

This is not the only ancient Egyptian version of this narrative: a similar creation story also appears in the Hermopolis creation narrative. This clearly shows that the idea of the creation from an egg existed in the Mediterranean significantly before the evidence in the Indian or Greek traditions.

Both López-Ruiz and West have noted the Phoenician narratives of creation that include references to eggs and deities that represent time. Those referred to by West in his examination of these narratives, as ‘Moch’s version’, ‘Thoth’s version’ and ‘Eudemus’ “Siodonian” version’ all contain references to a personified time and creation involving an egg.²¹ In particular, one of the accounts attributed to the Phoenicians includes a deity called Olumos, which is cognate with the Hebrew *olam* and can be translated as ‘remote time’ or ‘eternity’.²² As López-Ruiz notes, the mobility of the Phoenicians means that they are a likely medium by which this myth was transmitted around the Mediterranean in antiquity.²³

Despite the universality of the image of the egg as a way of showing the emergence of life, the similarity of the versions that pre-date the Greek and Indian texts indicate a strong possibility that they were influenced by the Egyptian cosmogonies, or by the tradition that produced the Egyptian narrative. It therefore seems possible that the narrative emerged in Egypt, moved out of this region with the help of the Phoenicians and spread around the Mediterranean, Near East and India. This appears to be a likely explanation given the available evidence. However, as there is much evidence missing, it cannot be proved with absolute certainty.

Post-contact creation narratives

While the examples from before 327 BCE show possible connections, the Greek and Indian texts that continued to be transmitted after contact have much stronger correspondences. Whether or not the earlier similarities are the result of mediated

contact, the pre-existing use of eggs within creation narratives of these two traditions led to a greater ability to borrow and exchange between them.

The Greek texts of interest after contact are the Orphic theogonies. These texts, which were attributed to Orpheus, are difficult to date and survive exclusively through quotation in other texts. Although some possible connections to material as early as the third century BCE have been made,²⁴ the fragments of these texts come largely from Neoplatonic authors and Christian apologists writing between the second and sixth centuries CE. Two Orphic theogonies will be examined in this chapter: the *Rhapsodic Theogony* and the *Hieronyman and Hellanicus Theogony*. The content of these theogonies is very similar; while the two texts emphasise different elements of the narrative, the sequence of events and the characters involved are almost identical, particularly in the early stages of the cosmos in which the egg appears. It is likely that the mythological content of these texts significantly pre-dates the versions that have survived; however, the philosophical and religious biases of the groups who transmitted them significantly influence their presentation of the mythological materials. As a result of this, these texts should be considered as part of the group after contact, since their presentation impacts the way that the mythological content is understood.

While the Orphic theogonies contain some familiar elements of the Greek divine family tree, such as the generations of the Titans and the Olympians, the beginning of the cosmos is very different to its presentation in more familiar versions. In the Orphic theogonies, Chronos (Time) is either the first deity (*HHT* Fr. 75.II) or the child of the first two, water and matter/mud (*RT* Fr. 109). In both cases, Chronos produces an egg, from which Phanes, the primary creator deity, is born.

While both the *Rhapsodic Theogony* and the *Hieronyman and Hellanicus Theogony* present Phanes' birth occurring in the same way – from an egg – the elements of the narrative emphasised in each text are somewhat different. In the *Hieronyman and Hellanicus Theogony*, Phanes' birth is associated with the origin of Ouranos and Gaia:

ὁ συμπληρούμενον ὑπὸ βίας τοῦ γεγεννηκότος ἐκ παρατριβῆς εἰς δύο ἐρράγη.
τὸ μὲν οὖν κατὰ κορυφὴν αὐτοῦ Οὐρανὸς εἶναι ἐτελέσθη, τὸ δὲ κάτω ἐνεχθὲν
Γῆ· προῆλθε δὲ καὶ θεὸς τρίτος δισώματος.

[The egg], when it had been fulfilled by the force of the begetter, broke in two through friction. The sky was completed from the upper part, and the earth was produced from the lower part. And third, the double-bodied god went forth.

(*HHT* Fr. 80.II)²⁵

The descriptions of Phanes' birth in the *Rhapsodic Theogony* do not refer to the creation of Ouranos and Gaia. Instead, they focus on the birth of Phanes as a moment of illumination in which the universe is revealed.

ῥῆξε δ' ἔπειτα Φάνης νεφέλην, ἀργῆτα χιτῶνα,
ἐκ δὲ σχισθέντος κρανίου πολυχανδέος ὠιοῦ

ἐξέθορε πρῶτιστος ἀνέδραμε τ' ἄρσενόθηλυσ
Πρωτόγονος πολυτίμητος.

And then Phanes broke the cloud, the bright tunic, and was first to leap from the top part of the wide-yawning, split egg and jump up, Protogonos, man-woman and very honoured.

(RT Fr. 121)

This connection to illumination and bringing the world to light is likely the origin of Phanes' name, which appears to be derived from φαίνω, meaning 'bring to light' or 'appear'.²⁶

The idea of Phanes being bright and shining appears elsewhere in the *Rhapsodic Theogony*. In, Phanes, also called Protogonos, is described as so bright that he cannot himself be seen, except by Night:

γε μὲν οὔτις ἐσέδρακεν ὀφθαλμοῖσιν,
εἰ μὴ Νύξ ἱερὴ μούνη τοῖ δ' ἄλλοι ἅπαντες
θαύμαζον καθορῶντες ἐν αἰθέρι φέγγος ἄελπτον
τοῖον ἀπέστιλβε χροὸς ἀθανάτοιο Φάνητος.

No one looked upon Protogonos with their eyes, except sacred Night alone. All the others were amazed looking upon the unhopd-for wonder, in the bright sky [Aither], such was the brightness of the skin of the immortal Phanes.

(RT Fr. 123)

A very similar description appears in RT Fr. 127 which represents Phanes as invisibly illuminating the rest of the cosmos:

ὅτι ἐν πολλοῖς Φάνητα φερωνύμως ὁ Ὅρφεὺς προσαγορεύει τὸν μονογενῆ,
τὸν υἱὸν τοῦ θεοῦ. οἶται γὰρ πρέπειν τὸ ὄνομα ὡς αἰδίως καὶ ἀοράτως
πανταχοῦ φαίνοντι.

For he thinks that the name is fitting as he [Phanes] eternally and invisibly illuminates everything.

(RT Fr. 127.I)

Alongside other fragments which depict him in a chariot and making an eternal journey (RT Frs. 172.I, III, 173), these fragments appear to indicate that Phanes has the role of a sun deity, in the *Rhapsodic Theogony* at least: he illuminates the world around him, but is himself too bright to be viewed.

Unlike the creator deities in the Indian texts, Phanes is a monstrous hybrid:

καὶ τρίτον ἐπὶ τούτοις θεὸν δισώματον, πτέρυγας ἐπὶ τῶν ὤμων ἔχοντα χρυσᾶς,
ὃς ἐν μὲν ταῖς λαγόσι προσπεφυκυίας εἶχε ταύρων κεφαλᾶς, ἐπὶ δὲ τῆς κεφαλῆς
δράκοντα πελώριον παντοδαπαῖς μορφαῖς θηρίων ἰνδαλλόμενον.

And in addition to these [water, matter and Chronos] a third, double-bodied god had gold wings upon his shoulders, he had growing upon his sides the heads of bulls, upon his head a monstrous serpent resembling the forms of every kind of wild animal.

(*HHT* Fr. 80.I)

So Phanes is predominantly anthropomorphic, but with animal elements stuck onto his body. The snake in the final line shows that Phanes is not hybrid in just one consistent manner, but has the potential to be an ever-changing hybrid. In the *Rhapsodic Theogony*, it is not so clear that he is an anthropomorphic-animal hybrid, but Phanes does have wings: he is ‘Borne here and there by golden wings’ (χρυσείαις περύγεσσι φορεύμενος ἔνθα καὶ ἔνθα, *RT* Fr. 136) like Eros in Aristophanes’ *Birds*.

Phanes possesses an additional hybridity. Phanes is consistently referred to as male; for example, he is repeatedly referred to as ‘the son of Aither’ (e.g. *RT* Frs. 124, 125) and he is described using masculine names and pronouns. However, Phanes possesses both male and female characteristics in the *Rhapsodic Theogony*. According to *RT* Fr. 134, in which Phanes is referred to by one of his other names, ‘the strong god Erikepaios is both female and father.’ He is also referred to as ἀρσενόθηλος (‘androgynous’) in *RT* Fr. 121. In the fragments in which this appears, Phanes’ dual sex is the most explicit way in which his physique embodies his creative potential. His simultaneously male and female body means that he has the capacity to reproduce in a way that is simultaneously sexual and parthenogenic. Phanes’ dual sex is thus suited to his role as the primary creator deity in the *Rhapsodic Theogony* and the *Hieronyman and Hellanicus Theogony*.

This is borne out by the list of his creations. The collection of places and things created by Phanes encompasses almost the entire cosmos: the home of the gods, the sun, moon, stars, earth, sea and the race of gold (*RT* Frs. 152, 153.II, 153.III, 159). As seen above, the moment of Phanes’ birth is associated with the beginning of the development of the cosmos either through the beginning of the process of differentiation, or through the illumination of the cosmos.

Phanes is not the only creative power in the Orphic theogonies. Chronos (Time) also takes on a significant role in the creation of the cosmos in these texts. Like Phanes, Chronos is a hybrid creature, combining a serpentine form with anthropomorphic and other animal elements; he also has connections to celestial phenomena. Chronos is significant in the creation in the Orphic theogonies as he creates not only the egg from which Phanes and the physical world emerge, but also Aither, Chaos and Erebos (*HHT* Fr. 78, *RT* Frs 111, 114). As is clear from his name, he is a deity associated with time; in some instances he is given the epithet ἀγήραος (‘unageing’), which indicates that he embodies eternity or cosmically large time spans, rather than the everyday, measurable passage of time.²⁷ Chronos’ creation of intangible beings, in contrast to the physical creations associated with Phanes, is mirrored in the type of time he is associated with. Chronos is associated with unaging/unmeasurable time; Phanes, as the sun, is connected to a type of time that is easily visible and measurable: a day.

The animal elements in Chronos' body have been used in Antiquity to associate Chronos with types of chronology. These hybrid features can be seen in *HHT* Fr. 76.I, for example:

δράκοντα δὲ εἶναι κεφαλὰς ἔχοντα προσπεφυκίας ταύρου καὶ λέοντος, ἐν μέσῳ δὲ θεοῦ πρόσωπον, ἔχειν δὲ καὶ ἐπὶ τῶν ὤμων περὰ, ὠνομάσθαι δὲ Χρόνον ἀγήραον καὶ Ἡρακλῆα τὸν αὐτόν.

He is a serpent with the heads of a bull and a lion attached to him, and between them he has the face of a god, and wings on his shoulders, and he is called ageless Time (Chronos) and Herakles.

In this fragment a connection is made between Chronos and Herakles; it is possible that this connection emerged as a result of the correspondence of these animal elements to the creatures that appear in the zodiac.²⁸ Herakles' labours have also been associated with the signs of the zodiac. Porphyry, for example, interpreted Herakles as the sun and the labours as an analogy for the movement through the twelve signs of the zodiac (Fr. 359);²⁹ a similar interpretation appears in Nonnus' *Dionysiaca* (40.369ff.). In the Orphic theogonies, Chronos is sometimes connected to Herakles: in fragments 76.I, II, III and IV from the *Hieronyman and Hellenicus Theogony*, Herakles is provided as an alternative name for Chronos. The connection between Chronos, Herakles and his labours, and the zodiac is made elsewhere in Orphic literature: in the Orphic *Hymn to Herakles*, the subject of the hymn is also addressed as 'endless father of time' (3).³⁰ This hymn, also associated with the name of Orpheus, describes Herakles/Chronos as being physically associated with certain celestial phenomena: 'you bear dawn and dark night round your head and dark night, passing through your twelve tasks from their risings to settings' (11–12). This hymn, then, clearly links Chronos to the labours of Herakles and to the zodiac; indeed, Chronos in this poem seems to some extent to embody the movement of the celestial bodies. West and Brisson both interpret the connection between Chronos, Herakles and the zodiac to mean that Chronos is, in the *Rhapsodic Theogony* and the *Hieronyman and Hellenicus Theogony*, a representation of the sun moving through the zodiac, measuring the passing time. In this way, they see Chronos' role as comparable to that of the sun's movement through the heavens battling with the figures in the constellations, as appears, for example, in Ovid's *Metamorphoses* (2.78ff.).³¹

There are also associations with broader celestial phenomena. West and Brisson also highlight the connection between the celestial associations of Chronos and the Stoic use of the Great Year. Indeed, partly on this basis, West argues that the *Hieronyman and Hellenicus Theogony* is a Stoic interpretation of an Orphic theogony which he theorises pre-dated the extant Orphic theogonies.³² Although the constellations appear to return to identical positions after a year, they actually move very slightly every year. The phenomenon called the 'Great Year' by ancient philosophers and astronomers is the length of time it takes for the fixed stars to move in a complete circuit back to their original position; reference to this

occurrence appears, for example, in Plato's *Timaeus* (39d–e).³³ Some Stoics argued that this cosmic cycle constituted the entire existence of the universe, and that the Great Year started and ended in fire; thus, the universe would be destroyed when all of the heavenly bodies had returned to their original places.³⁴

Stoic allegorists also interpret 'Herakles' to be one of the names of Nature and God, both of which are ways of referring to the universe itself. The connection between Herakles and Nature/God appears to be derived from his legendary strength; this connection appears, for example, in some of the Stoic fragments.³⁵ Thus, the time it takes for movement of the heavenly bodies to complete a cycle, i.e. the Great Year, is equivalent to the time during which the universe, i.e. Herakles, exists. In this case, the correspondence between Chronos and Herakles in the Orphic theogonies would work well, as the existence of the universe must correspond to the existence of time. Also, the existence of the universe in the Great Year is measured by the movement of heavenly bodies, which are also used in the measurement of smaller timeframes, such as days and years. Thus the representation of Herakles in Stoic texts and Chronos in the Orphic theogonies have strong correspondences.

Rather than representing the sun moving through the zodiac, as Brisson and West assert, it seems more likely that Chronos represents the movement of the zodiac itself. This would allow Chronos to more closely correspond to the Stoic Herakles and the idea of the Great Year. Also, like the circuit of the sun, the movement of the zodiac is another method for measuring the passage of time. Furthermore, Chronos is not compared to the sun anywhere in the *Rhapsodic Theogony* or the *Hieronyman and Hellanicus Theogony*; Phanes has characteristics more suited to that role, as discussed earlier. Thus, while Chronos does appear to embody the movement of time by an association with celestial bodies, it is as the movement of the stars and constellations, rather than as the sun moving through them. So both the creator deities are associated with chronology and measuring it.

As was seen in Aristophanes' *Birds*, the Orphic theogonies show the birth of a shining or bright deity from an egg. In this instance, Phanes' fecundity is not apparent through his name, as it is with Eros, but his dual sex and the list of his creations show this capacity. However, time has a much more significant role in the theogonies than in Aristophanes' play: not only is there a personification of time in the deity of Chronos, but both Chronos and Phanes are associated with different types of time. In particular, they are associated with specific cycles of time, that of the cycle of the zodiac and that of the sun respectively. This representation of cyclical forms of time is significant, as this plays an important role in some of the Indian texts.

Three of the Indian texts which contain narratives that closely correspond to the creation narrative of the Orphic theogonies are the *Laws of Manu*, the *Vishnu Purana* and the *Matsya Purana*. As in the case of the Orphic theogonies, the exact dates of these texts are difficult to specify. However, all three are certainly or very likely written after 327 BCE. The *Laws of Manu* appears to date from between approximately 200 BCE and 200 CE.³⁶ The date of the *Vishnu Purana* is hugely debated – there are estimates ranging from 700 BCE to 1000 CE.³⁷ The later datings

of the text are based on the references which could be understood to refer to later political and religious groups; earlier datings are based on the fact that the *Vishnu Purana* contains comparable content to other ancient texts. Thus the text appears to include earlier mythological content, but to have been significantly revised over time. The *Matsya Purana* has been dated to approximately 500 BCE to 300 CE.³⁸ However, it has also been revised repeatedly through its transmission; the continued significance of these texts to Hinduism means that there has been more reason for them to be amended and adapted over time than the Greek texts. This means that even if their mythological content pre-dates sustained direct contact between Greece and India – which seems probable – the form of that material may have shifted significantly after 327 BCE. They should therefore be examined as texts produced after contact.

The first of these texts, the *Laws of Manu*, is presented as a dialogue between a pupil and the sages Manu and Bhriga. This text is one of the key historical Indian legal texts, and it had a long-running influence for hundreds of years after its first production. Although the text's primary focus is the law, the first section focuses on a description of the creation. This is unusual among this type of law-code text from this period; for this reason, this whole section has been counted as spurious by some scholars.³⁹ However, since cosmogonies explain the origin and nature of the world that we live in, they also give an explanation for why laws must be the way they are, especially if they are perceived to be divinely sanctioned. Olivelle notes that the creation narrative, with its description of the different castes being created from different parts of the divine creator's body, shows the same bias towards Brahmins, members of the caste associated with priests, that appears elsewhere in the text.⁴⁰ This creation narrative could therefore be part of an attempt to display the Brahmins' social importance from the very beginning of creation. Thus the presence of this cosmogony at the beginning of a law text is not inherently strange.

As in the Orphic theogonies, the beginning of the creation in the *Laws of Manu* is presented using both the ideas of illumination and of breaking the egg into the two halves of the universe:

There was this world—pitch-dark, indiscernible, without distinguishing marks, unthinkable, incomprehensible, in a kind of deep sleep all over. Then the Self-existent Lord appeared—the Unmanifest manifesting this world beginning with the elements, projecting his might, and dispelling the darkness. That One—who is beyond the range of senses; who cannot be grasped; who is subtle, unmanifest, and eternal; who contains all beings; and who transcends thought—it is he who shone forth on his own.

As he focused his thought with the desire of bringing forth diverse creatures from his own body, it was the waters that he first brought forth; and into them he poured forth his semen. That became a golden egg, as bright as the sun; and in it he himself took birth as Brahmā, the grandfather of all the worlds . . .

After residing in that egg for a full year, that on his own split the egg in two by brooding on his own body. From these two halves, he formed the sky and

the earth, and between them the mid-space, the eight directions, and the eternal place of the waters.

(*LM* 1.5–13)⁴¹

The final part of the passage shows the beginnings of the physical world through the breaking of the egg into the heavens and the earth. However, much more of the passage's focus is on the sensory effects (or lack thereof) associated with the beginnings of the cosmos and the creator. The passage shows a shift from the sensory to the physical, as, following verse 13, it moves onto the body of the creator and what was produced from it. This is indicative of one of the key differences between the Indian and Greek versions of this egg narrative: a focus on the minds of both the audience and of the creator himself is much more apparent in the Indian texts. Brahmā is impossible to perceive or apprehend mentally until he thinks himself into creation and thus initiates the beginning of the world; he even cracks open the egg through thought. This is a very different representation of the actions of the creators in the Orphic theogonies, in which physical action is what determines the progress of creation. The creation of the egg and then creation of the self by Brahmā indicates more power vested within a singular entity. Thus the *Laws of Manu* shows a different conception of the universe from the Greek ones.

However, there is also some significant crossover. While not depicted as simultaneously male and female, Brahmā produces male and female entities from his body, indicating a capacity for both of these types of beings within himself. We can see this in verse 1.32: 'Dividing his body into two, he became a man with one half and a woman with the other.' He is also bright and shining like the sun: Brahmā himself 'shone forth' (*LM* 1.7) and the egg is given the description 'as bright as the sun' (1.9).

There is also a significant role of time in this text. In contrast to the personification of Chronos in the Orphic theogonies, the focus is on the spans of time and its cyclical nature. However, although time itself is not personified, the lifespan of the cosmos is directly tied to that of Brahmā. Between verses 64 and 73, there is a description of the progressively larger spans of time that make up elements of time experience by different beings. Verse 1.66 gives the mortal time ranges: 'Eighteen Nimeṣas ("winks") make a Kāṣṭha ("second"), thirty Kāṣṭhas a Kāla ("minute"), thirty Kālas a Muhūrta ("hour"), and thirty Muhūrtas a day-and-night.' For the gods, one mortal year equates to one day-and-night period (1.67). The cycle of time experienced by Brahmā is on a larger scale again: 12,000 mortal years makes one age of the gods, and 2,000 ages of the gods, i.e. 2,400,000 mortal years, makes one divine day-and-night period for Brahmā (1.68–73). These spans of time are significant because, like mortals, Brahmā is depicted as waking during the day and sleeping at night. Each time he wakes is a new creation of the universe, and each time he sleeps is a new destruction (1.74). Thus, while there are significant differences between them, the *Laws of Manu* bears a striking correspondence to the Orphic theogonies, in particular with the creator deity being born from inside an egg and the creative power of time.

A very similar narrative appears in the *Vishnu Purana*. This text presents a description of the creation and development of the cosmos, and narratives about gods and kings. As in the *Laws of Manu*, Brahmā is impossible to perceive; this is apparent at 1.2.10: ‘Who can describe him who is not to be apprehended by the senses?’⁴² In this version of the narrative, it is only after the emergence from the egg that he becomes visible.

Various elements of the cosmos, including ‘ether, air, light, water, and earth, severally united with the properties of sound and the rest’ come together to form the egg. Then we hear that:

This vast egg, O sage, compounded of the elements, and resting on the waters, was the excellent natural abode of Vishnu in the form of Brahmā; and there Vishnu, the lord of the universe, whose essence is inscrutable, assumed a perceptible form, and even he himself abided in it the character of Brahmā.

(1.2.54–55)

Thus, this unperceivable entity becomes perceivable once they have emerged from the egg made up of the elements required for sensory perception.

During the existence of the egg, there is a blurring of Vishnu and Brahmā. It is significant that this merging of these deities’ identities occurs at this point, as Brahmā is connected in this text explicitly with creation, and Vishnu with maintenance of the cosmos. All of creation seems to exist within the egg: ‘seas and mountains, the planets and divisions of the universe, the gods, the demons, and mankind’ (1.2.56). Since these things are about to become manifest upon the breaking of the egg, this is a transitional point between the need for a deity of creation and one of maintenance.

The importance of the transition of types of time is significant in this text because, as in the *Laws of Manu*, there is also an exploration of human and divine time periods and to the repeated destruction and creation of the universe. These time periods and this cycle of existence are again connected to the period of consciousness of the deity who dwells within the egg. These cycles closely parallel those in the *Laws of Manu*: time periods build up from small, mortal timeframes, to divine expanses. The description is not identical; there are some differences in the descriptions of this progression, and the final day and night of Brahmā appears to be 4,294,080,000 mortal years, expanding the period of existence of the universe (1.3). Alongside the description of the time periods of the cycles, there is a more explicit description of what happens to the universe when Brahmā sleeps than in the *Laws of Manu*: ‘At the end of this day a dissolution of the universe occurs, when all the three worlds, earth, and the regions of space, are consumed with fire.’ (1.3.22–23). Brahmā lives for a hundred years, all such days and nights occurring in this way, causing a hundred such cycles.⁴³

Brahmā is further connected to ideas about chronology through his association with the deity Kāla (Time). The text states that: ‘He then existed in the forms of

Purusha and of Kāla . . . Kāla (time)—the wise consider to be the pure and supreme condition of Vishnu’ (1.2.14–16). Again, there is a conflation of different divine entities – here between Brahmā, Vishnu and Kāla – but the deity associated with the egg is also associated with being the personification of time. In particular, it is an unbounded, unmeasurable time, as this entity is described as being ‘without beginning, and his end is not known; and from him the revolutions of creation, continuance, and dissolution unintermittingly succeed’ (1.2.16). In being identified with time and having his lifespan correspond to that of the cosmos, Brahmā very closely corresponds to Chronos in the Orphic theogonies. This correspondence is particularly strong in the connection that both figures have to the cycle of time associated with the destruction of the universe in fire.

The *Matsya Purana*, named for Matsya, a half-fish, half-anthropomorphic incarnation of Vishnu, covers a very wide range of topics, including a description of creation which is very similar to the ones examined above. In this narrative, the egg again appears upon the primordial waters after Vishnu sleeps upon them, and Brahmā is the deity born from the egg. The passage containing the description of the egg appears at 2.28–36:⁴⁴

The seed of creation, by coming into contact with water, produced a vast egg of golden hue, which after one thousand years, became then thousand times more luminous than the sun . . .

After dividing the huge Brahmāṇḍa [Brahmā’s egg] into two parts, [Vishnu] made the heaven and the Earth . . . The upper portion of the divided Brahmāṇḍa formed the heaven, the lower one the earth . . .

Afterwards, the principal mountains, like the Meru, clouds, lightening, embryo, rivers, pitṛis, Manu and the seven oceans, full of various gems, were created.

Brahmā . . . owing to his desire of calling the universe into being, he is also known as Prajāpati.

The sun, owing to its flashing out of the Brahmāṇḍa at the time of its breaking, i.e. being divided into two parts, is known by the name of Mārtāṇḍa.

In addition to showing a very similar pattern of the earth and the heavens being created through the cracking of the egg, the narrative clearly adopts and adapts the themes seen earlier in the *Rigveda*; in particular, the references to Mārtāṇḍa, seen above in 10.72. This text also picks up on some other themes connected to the narrative of the egg. For example, the main figure produces both male and female entities from their body: Brahmā creates a female divinity from his body which he then procreates with (*MP* 34–44).

These are not the only Indian texts to refer to the creation of the universe from an egg. For example, a golden egg also appears in the *Śatapatha-Brāhmaṇa* (11.1.6.1) and in the *Mahābhārata* (1.1.27). From the range of examples in which the narrative appears, we can see that it has a much broader usage in Indian texts than in the Greek tradition.

Conclusion

The difficulty in dating the texts means that we cannot accurately specify the periods during which transmission of these mythological ideas took place. Both the Greek and Indian texts seem to include mythological material from before the invasion of Alexander, but all were edited or produced in the form we have obtained, at some time after this date. However, that the significantly increased similarity of the two traditions occurred after Greece and India had attained a sustained level of direct contact through political and economic links points to a parallel intellectual link as well. While we may not be able to see when these links were made or pinpoint routes by which knowledge was transferred, we can gain insight into the types of information and narratives which were part of this intellectual exchange. Creation narratives engage with ideas about the nature of the universe and the nature of the divine, and so are ways of exploring religious and philosophical ideas. In the Indian and Greek texts post-contact, we can see an exploration of ideas about the emergence of the universe as part of a cyclical chronology: both ideas about large or eternal periods of time, but also more human-centric smaller timeframes, and thus the way that humans relate to the divine within a chronological framework.

The presence of some elements of the narratives about the eggs in those which appear before sustained contact would have allowed for an easier transmission of ideas between Greece and Indian using this narrative. The contexts in which each of these traditions works is clearly different. The use of monstrosity in the depictions of the gods in the Orphic theogonies and the focus on sensory perception in the Indian texts mean that there are clearly different associations being made with the creator deities and their chronological settings. So while there are connections between the two traditions, they are not fulfilling identical functions. However, the similarities would have provided a way of sharing ideas about time, the origins of the universe and the nature of its development. Thus in these narratives about creation occurring from an egg, we can see some of the intellectual trade between the ancient Indian and Graeco-Roman world.

Notes

- 1 López-Ruiz (2010): 11, 19, 36–37, 44, 46.
- 2 Hopman (2013): 5.
- 3 Hopman (2013): 12.
- 4 On the dating of the *Rigveda* see Jamison and Brereton (2014): 4–5; Levitt (2003): 342–345. Jamison and Brereton argue that the absences of references to iron in the text likely place it in a pre-Iron Age period but not significantly before the *Atharvaveda*, which has a lot of very similar content but does mention iron, thus placing the *Rigveda* pre-1200–1000 BCE. The references to generations of kings indicates the possibility that it was written in the preceding centuries, giving a range of 1400–1000 BCE. Levitt dates the *Rigveda* to c. 3000–1500 BCE on the basis of correspondences between the representation of deities in the *Rigveda* and those in ancient Near Eastern traditions.
- 5 This is part of the liturgical style of the text: the *Rigveda* was ‘designed to be recited during ritual performance’ (Jamison and Brereton (2014): 3). Translations of the *Rigveda* from Jamison and Brereton (2014).

- 6 Bhattacharji (1988): 322.
- 7 Bhattacharji (1988): 323; Jamison and Brereton (2014): 1592.
- 8 Bhattacharji (1988): 330.
- 9 Hoffmann (1976): 100.
- 10 Hoffmann (1976): 112.
- 11 A 'wind-egg' is an unfertilised egg and so would not normally produce any offspring.
- 12 Greek from Hall and Geldart (1988). Translations of Greek texts are my own unless otherwise noted.
- 13 E.g. Plato *Timaeus* 91d–e.
- 14 E.g. McEvelley (2002): 1–18.
- 15 For evidence of different nationalities or ethnic groups in the Achaemenid empire, see Dandamaev and Lukonin (1989): 292–320.
- 16 Brisson (1985).
- 17 Jamison and Brereton (2014): 4.
- 18 Boyce (1984): 10.
- 19 See Morenz (1973): 177–79 and Lesko (1991): 95.
- 20 Text from Faulkner (2004).
- 21 West (1994): 4–9.
- 22 López-Ruiz (2010): 153; West (1994): 292.
- 23 López-Ruiz (2010): 161.
- 24 The Derveni Papyrus was written in approximately 350–300 BCE, but West dates the content to approximately 500 BCE (Janko (2001): 1; West (1983): 18, 77, 81–82. On the Derveni Papyrus and its connection to the broader Orphic corpus, see Betegh (2004); Graf and Johnston (2013); Herrero de Jáuregui et al. (2011); Janko (2001, 2002); Laks and Most (1997); López-Ruiz (2010): 139–141; Parker (1995).
- 25 The Greek of the Orphic Theogonies is from Bernabé (2004).
- 26 LSJ, s.v. φαίνω.
- 27 Brisson (1985): 43.
- 28 Brisson (1985): 45; West (1983): 192–194.
- 29 Fragment in Smith and Wasserstein (1993), quoted in Eusebius *Praeparatio Evangelica* 3.11.15. (Quandt, 1962).
- 30 Greek text of the *Orphic Hymns* is from Quandt (1962); translations are from Athanassakis and Wolkow (2013).
- 31 In her examination of Chronos in the Orphic theogonies, Martínez Nieto also argues that Chronos can be identified with the sun (2011: 96–97).
- 32 West (1983): 101–106, 182.
- 33 For an overview of the astronomical knowledge available to ancient Greeks, see Dicks (1970): 9–26. From observation, ancient Greek astronomers could discern the constellations and stars moving in an annual cycle, so that they reappear in (almost) identical positions each year. However, it is also clear from references in ancient texts, such as the *Timaeus*, that they were aware that the constellations moved a tiny amount each year as part of another huge cycle (Dicks (1970): 206–208).
- 34 For example, SVF vol. II, Fr. 596: ὅπως οἱ Στωϊκοὶ περὶ τῆς τοῦ παντὸς ἐκπυρώσεως δοξάζουσιν. ἀρέσκει δὲ τοῖς πρεσβυτάτοις τῶν ἀπὸ τῆς αἰρέσεως ταύτης ἐξαιθεροῦσθαι πάντα κατὰ περιόδους τινὰς τὰς μεγίστας εἰς πῦρ αἰθερῶδες ἀναλυομένων πάντων. 'The Stoics hold this belief about the conflagration of everything. And it is the opinion of the oldest of those in that school that everything will be turned to either after certain great periods, as everything will be dissolved into aether-like fire'; Greek from Arnim (1903).
- 35 For example, Seneca, *De Beneficiis* 4.8.1 and SVF Vol. 1 Fr. 514.
- 36 For a discussion on the differing options on the dates of this text, see Olivelle (2005: 20–23). 200 BCE–200 CE seems to be the broadest range of possible dates, but the text is more likely to have been composed in the later half of that period.
- 37 For a survey on the range of dates, see Rocher (1986): 249.

- 38 Dikshitar (1935): 72; Pargiter (1913): xiii.
- 39 For example, Bühler stated 'The whole first chapter must be considered a later addition. No Dharma-sûtra begins with a description of its own origin, much less with an account of the creation.' (1886: lxvi).
- 40 Olivelle (2005): 52.
- 41 Translations of the *Laws of Manu* are from Olivelle (2005).
- 42 Translations of the *Vishnu Purana* are from Wilson (1981).
- 43 For a discussion of cycles of time, see Rocher (2004).
- 44 Translation from Basu (1916).

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10 The impact of the Indian Ocean trade on the Ancient novel

Juan Pablo Sánchez Hernández

The literary tradition on India and the Indian Ocean trade

An early interest in the East is observable from the Greek fascination with the Persian Empire, a mighty power that stretched from the Balkans to the Indus River region. Herodotus included in his *Histories* some information about India (Hdt. 3.98–104), following the accounts of Scylax of Caryanda (Hdt. 4.44), a Greek explorer and subject of King Darius I. Ctesias of Cnidus, court physician of King Artaxerxes II, also wrote an *Indica*, a notorious treatise for his catalogue of weird animals, such as the *martichora* (i.e. the tiger).¹ However, from the late fourth century BCE, India was particularly linked with the figure of Alexander the Great who overthrew the Persian Empire, invaded the Indus River valley, and (supposedly) met the Gymnosophists or ‘naked-sages’. In other words, Alexander’s expedition truly opened India to Greek travellers who revealed its marvels to the Mediterranean world. The accounts of such expeditions by Onesicritus, Nearchus and Ptolemy were duly quoted in later historical works (such as Diodorus Siculus’ *Library of History*), as well as in ethnographic treatises (like Arrian’s *Indica*), and in the more fictitious *History of Alexander* of Pseudo-Callisthenes, a second-century CE compilation of disparate materials (including a fake letter on India from Alexander to Aristotle).² Old reports on India were also influential in the *Life of Apollonius of Tyana* by Philostratus, a biography of the first-century CE sage who travelled to India (Philostr. *VA* 2–3). This sage commented on marvels such as the *martichora* and, like Alexander, met the Indian Gymnosophists. In sum, the literary tradition provided well-articulated narratives on India, in which the country featured mostly as a land of pious sages and fantastic beasts.³

However, contacts between the Mediterranean region and India became more frequent during the first and second centuries CE. The Romans seem to have encouraged some diplomatic relations, with Indian embassies occasionally reaching the West: famous is the story of the Brahmin who burnt himself to death in Athens in the presence of the Emperor Augustus.⁴ However, in contrast to what pervades the Classical and Hellenistic literary tradition, most of the new information seems to derive primarily from commercial contacts. These were indeed quite frequent: caravans followed overland routes through Central Asia and large freighters sailed from Egypt to India with the monsoon winds, bringing

back precious cargoes of silk, nard, pepper, cinnamon and precious stones from Arabia, India and China.⁵ However, the knowledge that the Romans had of faraway lands was still vague, as they mostly relied on the reports of these Mediterranean merchants who participated in the Indian Ocean trade. For example, we know the story of an unnamed freedman of Annius Plocamus. The latter had farmed the rights to collect the *vectigal Maris Rubri* (exactly what this tax or customs duty may have been is debated, but it should probably not be conflated with the *tetarte*). Pliny reports that this unnamed freedman was sailing around the coast of southern Arabia (it is not clear whether he was engaging in tax collection on behalf of his patron or in commercial activity, the former notion, with good reason, is doubted). While sailing, he was carried away by a gale from the north, coming from beyond the coast of Carmania (roughly the south-eastern coast of modern Iran), and eventually ended up in Taprobanē (after fifteen days). While on Taprobanē (modern Sri Lanka), and after learning in six months the native language, he most likely came back to Rome in the company of the Sinhalese embassy that the king had sent, and related what he had learnt. This would have been the first attested contact with Sri Lanka in the time of the Emperor Claudius (at least, as in the reports of Pliny the Elder).⁶ Those intermediaries occasionally left some type of written record, such as the anonymous Egyptian sailor who authored the *Periplus Maris Erythraei* (henceforth *Periplus*);⁷ or a certain Isidore who was from Charax Spasinou, another important enclave for East–West trade in the Persian Gulf.⁸ Still merchants were not seen as a reliable source of information and they were even accused of inventing incredible stories to enhance the price of their expensive imports:⁹ ‘Can you mention any rabble of people more wretched and ill-starred than merchants and ship-renters?’¹⁰ asks Philostratus’ Apollonius, while reminding us of such general practices. Also in the same book, the Indian gymnosophist Iarchas confirms the presence of ships from Egypt and visitors exchanging Indian wares for products, such as cloth made of βύσσος, while they ‘malign the race of the Greeks’.¹¹

As we see in this quotation from Philostratus’ *Life of Apollonius of Tyana*, ancient narratives on India in Roman times typically combined bookish information with allusions to a more recent reality. In this chapter, I will study the impact of the Indian Ocean trade on the Ancient novels. Composed between first and fourth centuries CE, Ancient novels told their entertaining stories, full of happenings and plot twists, with a typical attention to a canon of authors and subjects drawn from the Classical past. However, their novels will be more than simply a re-elaboration of a literary tradition filled up with trips, exotic people, pirate attacks, and (apparently) casual encounters. We will also see that also the Ancient novelists use a general interest in eastern import products and their knowledge of the diverse people involved in Rome’s eastern trade in order to strengthen the plausibility of their narratives. I will primarily focus on the two (semi-) preserved Roman novels, Petronius’ *Satyricon* and Apuleius’ *Metamorphoses*, and then on three of the Greek preserved ones, Xenophon’s *Ephesiaca*, Achilles Tatius’ *Leucippe and Clitophon* and Heliodorus’ *Aethiopica*. In the case of the comic-realistic novels of Petronius and Apuleius, we will confront not only the harsh existence of lowlife

characters, but also the rise of the newly rich, who flaunt their wealth in extravagant displays of exotic products, including those imported from India. The Greek novels are a bit different, as being more idealistic in their stories revolving around the love of the two protagonists, but they also show a great impulse towards fascinating destinations with travels in Egypt and the Levant. In such liminal spaces, as we will see, encounters with the exotic and the bizarre were possible: people coming from far-off countries and also animals, plants and other products were described in learned digressions.¹²

The Roman novel: exotic products and patterns of consumption

Petronius' Satyrica

The *Satyrica* is the tale of the (mostly lecherous) escapades of the picaresque characters Ascyltus and Encolpius, as well as the young male companion of the latter, Giton. But the novel's most memorable character is Trimalchio ('thrice-mighty kingling'), a successful and immensely rich freedman of Near Eastern origin, who offers an extravagant dinner party at his house at Puteoli.¹³ Trimalchio embodies the advancement of the wealthy freedmen who were gradually gaining fortune and influence in Rome in Nero's time. First, he was placed in control of a fortune after the death of his former master (Petr. 76.2), then became rich with his commercial activities (Petr. 76.3) and, apart from the revenues from his estates and his lending activities, he seems to have retained some interest in trade ventures through agents late in his life (Petr. 39.8 and 76.8–10).¹⁴ Like Trimalchio, Lichas from Tarentum (another character in the novel) also invested part of his profits in landed estates, although he continued to run his trading house (Petr. 101). Even Eumolpus impersonates, later in the novel, a millionaire who has lost much money in a shipwreck in Africa (Petr. 114 and 141). We can see reflected here a common economic pattern: members of the urban elite in Roman times were not so much active as traders; they instead have shippers and merchants among their debtors and clients – especially if living in harbour cities (like Trimalchio in Puteoli). In fact, in the specific case of Rome's eastern trade, we have even good records of maritime loan agreements and investments through agents of Roman people of considerable wealth (even women). It was in this indirect way that members of the Roman elite engaged in eastern commerce.¹⁵

The exotic luxury items that the Roman elite members procured for themselves were used to impress their peers – especially those articles that, in Petronius' time, were imported from Arabia and India – and Petronius seems to mention them in an exaggerated way for a comic effect. We can clearly see this, for example, with Trimalchio's administrator Cinnamus (Petr. 30.2), named after the Arabian spice, which is an obvious verbal pun to indicate Trimalchio's trade interests in the East.¹⁶ In such regard, the *Satyrica* is a goldmine of data not only for the widespread consumption of unguents or perfumes (Petr. 28.2, 47.1, 60.3, 65.7, 70.8, 70.9, 71.6, 105.3), but also of spices of eastern origin, such as pepper (Petr. 33.8, 36.3, 38.1,

44.6, 49.5, 74.5, 138.1), cinnamon (Petr. 93.2 v.9), cumin (Petr. 49.5, 58.14) and nard (Petr. 78.3).¹⁷ There are also references to other imports, such as Indian pearls (Petr. 63.3, 55.6 v.9), Indian ivory (Petr. 135.8 v.1), and the Tyrian purple (Petr. 30.11, 83.10 v.3, 119. v.10 and v.25, 131.5) with which silk was dyed. Exotic luxury items were goods that the greatest Roman landowners had to buy for a hefty price, but Trimalchio had them produced on his own estates: even his pepper was home-grown and he comically claims that he has written for a cargo of ‘mushroom spores’ from India (Petr. 38.1–4).¹⁸

Petronius also deals with the typical moral concerns of his days that condemned *luxuria*, a feature that he also shares with Apuleius (see further below). Writers condemned excessive consumption in ethical terms and drew attention to a drain of money to the East, quoting the significant costs for items such as pearls, gems and silks that women wore.¹⁹ However, we find a certain touch of a cynical irony in Petronius when dealing with this topic – especially if he was the same individual whom Tacitus labels as Nero’s *elegantiae arbiter*.²⁰ It is curious that Trimalchio displays his unbridled *luxuria* in a banquet and during it pronounces a poetic tirade (Petr. 55.5), in which he evokes how ‘the high walls of Mars crumble beneath the gaping jaws of luxury’; and mentions the expensive pearls, these ‘fruits of India’ that adorned an adulterous woman in her debaucheries.²¹

Another poetic composition delivered by Eumolpus, the *Bellum Civile* (the ‘Civil War’ in Petr. 119–124), also explores the topic of the moral decay of Rome because of its uncontested world domination:

The soldier out at sea would praise the bronze of Corinth; bright colours dug from earth rivalled the purple; here the African curses Rome, here the Chinaman plunders his marvellous silks, and the Arabian hordes have stripped their own fields bare.²²

This poem is foremost a parody of the baroque style of Lucan’s *De Bello Civili*, using the same poetic grandeur that, for instance, appears in Lucan’s exuberant description of Cleopatra’s palace in which ‘ivory covered the foyer, and hand-dyed Indian tortoiseshell adorned the doors’.²³ But this style was also typical of Lucan’s uncle, Seneca, who presented Phaedra on the stage ‘with robes bedecked with gold and with the purple of the Tyrian shell’, made on ‘the webs which the far-off Chinese gather from the trees’²⁴ – note again this obsessive connection between luxury and decadent effeminacy.²⁵ On the other hand, the expensive imports are presented in the poem as tokens of submission to the warlike Romans. We can see here a reflection of this disillusionment of Lucan with imperialism, with his denunciation of Alexander the Great’s campaigns that ‘polluted newly discovered rivers, the Euphrates with Persian blood and the Ganges with Indian’.²⁶ But Petronius’ poem might also seem a subversive parody of the Augustan era’s imperial rhetoric: we already find at that time hyperbolic remarks (mostly from poets) about how the Arabians, Parthians, Indians and even the Chinese people acknowledged Roman superiority through their embassies and their fabrics sent to Augustus.²⁷ Perhaps Petronius’ intention was to denounce this hypocritical attitude of the

moneyed class that, in spite of all pleas for the contrary, indulged in this typical conspicuous (and corrupting) consumerism of the Neronian age.²⁸ In that case, Trimalchio will be an exaggerated symbol of the Roman Empire's economic expansion and its moral implications, of the specific effects of long-distance trade on the social order, and of the changes operating in the mentality of the Roman elites and their clients during the first century CE.

Apuleius' Metamorphoses

The *Metamorphoses* tell the story of the young Lucius, who is transformed into an ass and is subjected as such to various adventures before regaining his human form. The novel also features the tale of Cupid and Psyche (Apul. *Met.* 4.28–6.24), or rather the story of Psyche's overcoming of obstacles before her final union with her husband. Although prosaic economic details, such as prices and living costs, are less common in Apuleius,²⁹ we also have the same well-seasoned dishes with pepper and other spices (Apul. *Met.* 10.16.6); and lavishly decorated houses, such as Byrrhaena's (Apul. *Met.* 2.4 and 19) and Cupid's (5.1), both decorated with expensive furniture made of Indian citrus wood and ivory (Apul. *Met.* 2.19.1 and 5.1.3)³⁰ and other luxurious items. Those displays of luxury enhance the privileged class status to which Lucius and Psyche belong (in Books 1–3 and 4–5) before their fall into the lower ranks. Thus, the excessive wealth, i.e. this indulgence in 'slavish pleasures',³¹ highlights certain features of Lucius' and Psyche's characters (such as their *curiositas* and bold confidence) that will prove to be their ruin. Their respective stories will then progress in adventurous wanderings, facing all types of difficulties as subjects to the whims of fortune (and exposed, in Lucius' case, to the most pitiful human vices), until they find their respective paths to virtuous redemption.³²

It is within this frame, in which Apuleius comments on social realities and moral issues, that we should interpret Apuleius' references to exotic lands and products throughout the novel. The most mentioned eastern import in the *Metamorphoses* is Chinese silk (Apul. *Met.* 4.8.2–3, 4.31.7, 6.28.6, 8.27.2–3, 10.34.4, 11.8.2), or the *serica* through which the Chinese (the *Seres*) became chiefly known. However, in two instances (8.27.1 and 10.31.1–2), Apuleius refers to this tissue not as *serica*, but as *bombycina*. A primitive form of raw silk from wild silkworms was already known on the island of Cos since the fifth century BCE and, according to Aristotle (*HA* 551b), discovered by a Coan woman, Pamphile (not to be confounded with her namesake in the novel).³³ But Apuleius mostly refers to this product from the domesticated silkworm of China, the *bombyx mori*, imported through Central Asia and India (with a silk industry of its own), that replaced the Coan silk in Rome in the first century CE.³⁴ Notwithstanding this, moral concerns regarding the use of silk were expressed by the Emperor Tiberius, who considered that men should not disgrace themselves with silken clothing from the East,³⁵ and by Seneca, who in one of his moralistic homilies remarked that 'when a woman wears it, she can scarcely, with a clear conscience, swear that she is not naked.'³⁶

Accordingly, the use of silk (alongside other exotic items) is interpreted in Apuleius' novel as a sign of moral decadence and even effeminate perversion.

This is, for example, the case of the eunuch priests of the goddess Atargatis, with whom Lucius has the bad luck to find himself (Apul. *Met.* 8.24–30, 9.4, 9.8–10). They present themselves ‘wearing headwraps and saffron robes and linen and diaphanous silk’,³⁷ while Lucius carries the cult statue ‘wrapped in a silken cloak’,³⁸ becoming the unwilling witness to the orgies and crimes of these priests. At another notorious occasion, Lucius is prepared to have sex publicly with a woman in an amphitheatre after a pantomimic representation of the ‘Judgement of Paris’, during which the female dancer portraying Venus wears a silken gown (Apul. *Met.* 10.31.1–2). This abhorrent union between a woman and a beast is to be enacted on a richly decorated bed, with lambent veneers of Indian tortoiseshell (*Indica testudine*) and floral silken coverlets (*veste serica*) that are stuffed with masses of feathers.³⁹ Thus, such references to imported products and exotic lands in these episodes enhance a certain censorial attitude toward sexual violence and illicit practices.

We can explore further examples of the unifying significance of such references. In fact, in the Prologue, Apuleius clearly states that he is about to begin a tale ‘of men’s shapes and fortunes transformed into different appearances and back again into themselves by mutual connection’;⁴⁰ and this phrase ‘by mutual connection’ or ‘with reciprocal ties’ (*mutuo nexu*) makes explicit that the characters in the novel are somewhat connected through such stories.⁴¹ Lucius, the central character of the *Metamorphoses*, comes to Thessaly to learn about magic and the extraordinary powers of the witches capable ‘to bring down the heavens, to turn watercourses to ice, to fill Tartarus itself with rays of light’.⁴² However, all of those witches, including Pamphile (‘all lover’), devote their powers to the pursuits of sex companions (Apul. *Met.* 1.9, 2.5, 3.15–16), even making the Indians and the Ethiopians fall madly in love with them (Apul. *Met.* 1.8.6); and it is within the context of a sexual affair with Photis, Pamphile’s servant (and apprentice witch), that Lucius is transformed into an ass. Lucius suffers all type of adventures until he receives a stunning vision from Isis, the goddess whose power puts in order all this world that was turned upside down by the witches: ‘At my nod’, she says ‘I set in place the lights and heights of heaven, the salubrious sea-breezes, the silences of the despairs of Hell.’⁴³ The goddess Isis, worshiped even in the eastern (i.e. Indian) and western Ethiopian regions (Apul. *Met.* 11.5.3), finally saves Lucius and transforms him back into a human.

Aromatics from Arabia also play a specific role among those hints that not only mark Lucius’ ordeals, but also suggest his final conversion. As Arabian spices held a cosmetic importance in Roman times, they primarily appear in stories of sex and magic in the novel: for example, witches use Arabian spices in love-spell rituals (Apul. *Met.* 2.17.4, 2.18.2–3), Lucius praises Photis’ hair oiled with drops of Arabian perfume before initiating an affair with her (Apul. *Met.* 2.9.3), Cupid’s locks dangle round his head with a scent of cinnamon that seduces Psyche (Apul. *Met.* 5.13.3), and Cupid’s mother, the goddess Venus, customarily diffuses such scent, also bedewing the air with balsam (Apul. *Met.* 2.8.6, 6.11.1, 6.24.3).⁴⁴ However, at the end of the novel, Apuleius chooses to emphasize the important part that aromatics also played in religious rituals: the roses that Lucius needs to be

transformed back into a human are said to exude a fragrance of cinnamon (Apul. *Met.* 10.29.2) and also the goddess Isis breathes the fertile fragrance of Arabia (*spirans Arabiae felicia germina* – Apul. *Met.* 11.4.3), while she gives instructions to Lucius for his eventual salvation.⁴⁵ In sum, Apuleius properly marks, by referring to the different uses of the Arabian spices, the transfer of Lucius from the governance of the oversexed witches to the governance and the chaste and mystic love of the almighty goddess Isis.

The Greek novel: trade routes and eastern travellers

As noted above, the Ancient Greek novel presents the story of two lovers and their adventures in exotic lands before they are happily married. No Ancient Greek novel would be complete without episodes exposing the protagonists to the dangers of sea travel and adventures in exotic locations. However, one also must keep in mind that the Greek novels were mostly written by authors of eastern origin who seem to know Egypt and the Near East (and their respective traditions) quite well.⁴⁶

Achilles Tatius' Leucippe and Clitophon

This eastern origin is seen with, for example, *Leucippe and Clitophon* (dated to the second century CE), authored by Achilles Tatius, probably an Egyptian from Alexandria.⁴⁷ In his evocation of Egypt, Achilles Tatius takes pleasure in all types of asides and digressions on exotic beasts in the East (crocodiles, hippopotami, elephants) and sights (the Nile and the Egyptian religion) that are (more or less) based on old descriptions.⁴⁸ But, on the other hand, Achilles also enhances the plausibility of his story with references to the wonders of the Roman East and the busy life of its great market towns. Since the male protagonist (and narrator) Clitophon claims to be a 'Phoenician by birth from Tyre' (Φοινίκη γένος, Τύρος ἢ πατρίς 1.3.1), there are many references at the beginning of the novel to this commercial city and its ports (Ach. Tat. 2.1–6, 2.15, 2.17, 5.10.1–2 and 7) and to the manufacture of purple dye (Ach. Tat. 2.11.5–8), one of the most important industries in the region in Roman times.⁴⁹ Books 3 and 4 are largely set in the Egyptian hinterland, and include the encounter with the Egyptian βούκοιλοι ('cowherds'), the bandits of the Nile Delta who actually revolted against Rome in 172 CE.⁵⁰ In book 5, Achilles Tatius also gives one of the most complete descriptions of Alexandria and its monuments (Ach. Tat. 5.1–2), as well as the island of Pharos and the lighthouse (Ach. Tat. 5.6).

Xenophon's Ephesiaca

In Xenophon's *Ephesiaca*, the heroine Anthia is sold into slavery in the market of Antioch, an international port visited by the Cilician merchants (X. Eph. 2.11.9), and then is handed over for sale in the slave market in Alexandria (X. Eph. 3.9.1). It is not strange that Alexandria features in most of the Ancient Greek novels: the city was indeed a bustling commercial centre in Roman times, but visitors were

also attracted by its world-class sights (those that were succinctly described by Achilles Tatius), and it was even possible to recognize Ethiopians and Indians among the learned audiences attending Alexandria's lecture halls.⁵¹ Hence, it is not strange to see also in Xenophon's novel an Indian king, who happens to be in Alexandria for the sake of tourism and on business (X. Eph. 3.11). This wealthy Indian rajah, attracted by Anthia's beauty, buys her for his pleasure, but Anthia tells him that he must wait a year because she is under the protection of the goddess Isis. This scene duly regards the stereotypical idea of India as a country of fabulous wealth and lewd princes: even in sources such as the *Periplus*, we learn that Ethiopian and Indian kings greatly valued slave musicians, eunuchs and concubines of western origin.⁵² In sum, this episode is one of the most interesting in Xenophon's novel in the way that reveals the trade and cultural connections of Egypt with India.

The name of this Indian king is Psammis. This name does not seem to be Indian at all, but it is rather etymologically related to the Greek word ψάμμος 'sand',⁵³ clearly anticipating the trip of this character back to India through the Egyptian Eastern desert (X. Eph. 4.3.1–5). Departing from Alexandria, the Indian rajah follows the Nile up via Memphis (X. Eph. 4.3.3–4) before reaching Koptos (X. Eph. 4.3.5), one of the nome-capitals of Upper Egypt on the most eastward bend of the Nile. In Roman times, Koptos had also become an international emporium through which eastern goods were imported from the Red Sea ports and vice versa, following land routes in the Eastern Desert.⁵⁴ From Koptos, the Indian king advances through the Eastern Desert with a train of camels, donkeys and packhorses, loaded with gold, silver and precious materials (X. Eph. 4.3.5).⁵⁵ In Roman times, desert roads connecting Koptos with the Red Sea ports were actually dotted with *praesidia* (fortlets), *hydreumata* (wells) and *lakkoi* (cisterns),⁵⁶ safeguarding travellers from the attacks of bandits and violent nomads. Psammis' final destination is one of the Red Sea ports, where archaeological and inscriptional evidence (Tamil inscriptions on broken jars, seeds, etc.) demonstrates the presence of people of Indian origin in the harbours of Myos Hormos and Berenike.⁵⁷ Unfortunately, the Indian king Psammis never reaches any of those ports: he is attacked and killed by the bandit Hippothous who has set up his base next to Koptos (X. Eph. 4.1.1–5).⁵⁸

Heliodorus' Aethiopica

The novel known as the *Aethiopica* is chronologically the latest of the five novels that survive (written either in the early third or fourth century CE).⁵⁹ In this work, we have another story of alluring exoticism which is set in a faraway land during the fifth century BCE. Briefly, the novel narrates the eventful journey of Theagenes and Charicleia from Delphi in Greece to the Mediterranean coast of Egypt (at that time, a Persian satrapy) and then up the Nile to Meroë in Ethiopia, where Charicleia is eventually recognized as the daughter of King Hydaspes and Queen Persinna. Her identity is then re-established: being exposed as a child because of her whiteness, Charicleia was saved by Sisimithres, an Ethiopian

gymnosophist (or 'naked-sage'),⁶⁰ raised in secret, and then taken to Catadupi in Egypt, where the Greek Charicles adopted her.

The *Aethiopica* was written by 'Heliodorus, a Phoenician of Emesa, son of Theodosius, and descended from the Sun',⁶¹ an interesting statement since the world of Greek-speaking Levantine merchants features prominently in Heliodorus' novel. For example, when Charicleia and Theagenes decide to escape together to Ethiopia, they book passage with a Phoenician merchant from Tyre who happens to be 'sailing to Carthage in Libya with a cargo of merchandise from India and Ethiopia, as well as Phoenicia'.⁶² The merchant becomes enamoured of Charicleia and tries to seduce her. A storm drives the couple to Egypt and there they meet another character from Naucratis, the most prosperous commercial entrepôt in Greek hands in the Persian satrapy of Egypt during the fifth century BCE (cosmopolitan Alexandria is yet to be founded). He is an opulent merchant whose name is Ναυσικλῆς ('famous for his ships'), a self-made entrepreneur with a keen eye for business and a notorious slave-trader. In the novel, Nausicles plans to sell off Thisbe, an excellent singer from Athens to the king of Ethiopia 'so that, as he said, she might be his wife's drinking companion and familiar after the manner of the Greeks'.⁶³ It is not so surprising to find 'businessmen', such as Nausicles, eager to seize great opportunities in long-distance trade. As we have already seen with the case of the Indian King Psammis (see *supra*), in Roman times, slave musicians and concubines of western origin were much appreciated in the royal courts of Africa and India.⁶⁴

We also find in Heliodorus this world of exotic products, lively entrepôts and trade routes going through Egypt to the distant East. For example, Heliodorus' depiction of Catadupi, a town where Greek Charicles and the Ethiopian Sisimithres met (Hld. 2.29.1–33.2.), seems to be inspired by other international trade cities, such as Koptos (see *supra*). Charicles has primarily come to Egypt to do 'research on the cataracts of the Nile',⁶⁵ but he also shows interest in the products that are on display in the markets of Catadupi. So, when the young Ethiopian approaches him, he introduces himself as a merchant: 'I have been watching you buying a number of the herbs and roots that grow in India, Ethiopia, and Egypt',⁶⁶ he says to Charicles. The Ethiopian lures him to a discreet area with the promise of supplying these things for him at a favorable price: 'you will see them, but do not be too stingy with your offers',⁶⁷ says the Ethiopian; 'do not be too grasping in your price',⁶⁸ warns Charicles, before accompanying him. Charicles is then offered pearls, emeralds, sapphires and other gems, which an enticed Charicles describes at a certain length, alongside Chariclea, then a maiden of only seven years old.⁶⁹

Then the Ethiopian decides to disclose some information: the girl has been born into a free family, she is under his tutelage and he himself has come as an ambassador from the Kingdom of Meroë to meet the Persian governor at Catadupi. As he is pressed with the duties of his embassy, the Ethiopian makes arrangements for another meeting while Charicles keeps the child. However, the following day, Charicles learns from the governor's staff that the Ethiopian has been driven from Egypt because 'he told the satrap to keep his hands off the emerald mines, claiming that they belong to Ethiopia'.⁷⁰ The emerald mines actually existed in the region

south of the first cataract of the Nile, known as the Dodekaschoenos, claimed both by Romans and Ethiopians. This dispute in turn could serve as the historical basis for the battle of Syene (Hld. 9) between Persians and Ethiopians over the mines, which is one of the last episodes in the novel before the protagonists actually reach the Kingdom of Meroë.⁷¹

Heliodorus hints at the kingdom of Meroë by means of a repeated reference to an exotic product: the waistband worn by Charicleia, made of the Chinese type of silk (σηρικός), a recognition token with which Charicleia was exposed in her early childhood.⁷² We are gradually furnished with all the information necessary for solving the mystery surrounding the silk band (Hld. 2.31.2–4, 4.8.1–8, 4.11.3–4, 8.11.9) until Charicleia presents it to the perplexed Queen Persinna, who asks her husband and the gymnosophists to read the message on it, written in Ethiopian characters (Hld. 10.13.1–14.7). Once we are in the Meroitic court, we are surprised by the prosperity of the kingdom and the vast riches that lie in heaps in the royal palace's storerooms.⁷³ But as the protagonists are even presented in golden chains instead of iron, one gets the impression that the Ethiopians control such passion for all type of luxuries (unlike Trimalchio, see *supra*) and they totally disregard these items that were of a limited supply and very expensive in Rome.⁷⁴

But this luxury not only foreshadows this control they exert over themselves, but also over the nations producing such luxury items, as represented in the great triumphal parade at the end of the novel. The rising importance of Rome's trade and cultural contacts in the region can explain the characterization of some of the embassies. For example, the Arabians are poetically called 'the men of the Land of Cinnamon',⁷⁵ and they come with their typical 'gifts of incense leaves, cassia and cinnamon and the other spices that scent the land of Arabia'.⁷⁶ Likewise, another embassy comes from the Chinese (or Σῆρες) with purple-dyed silk garments that were imported in Roman times at a great cost.⁷⁷ Certainly, it is surprising to find the Chinese at the court of Hydaspes, but some ancient literary sources also claimed that the Chinese were 'of Ethiopian race'.⁷⁸ Furthermore, Heliodorus also refers to an embassy from the well-known 'Cave-dwellers' (Τρωγοδύται) of the western coast of the Red Sea,⁷⁹ but he makes them come with a griffin and a tribute of 'ant-gold' (i.e. collected by gold-digging ants), also relying here on the incredible stories transmitted by Herodotus.⁸⁰ It seems, therefore, that Heliodorus occasionally combines allusions to a familiar ethnographic knowledge with some fantastic elements of the *mirabilia* genre.

Nevertheless, this puzzling collection of peoples in the Ethiopian court was involved in the Indian Ocean trade, as shown by these offerings of cinnamon, incense and silk. In addition, Heliodorus presents the Axumitae's arrival with a giraffe (καμηλοπάρδαλις), that excites the assembled crowds at the Ethiopian court,⁸¹ in the same fashion as it was sometimes shown in the West as an exotic wonder.⁸² In fact, Heliodorus evokes the rising fortunes of Axum, then a kingdom in concurrence with Meroë in connection with Rome's eastern trade.⁸³ Heliodorus also refers to the Blemmyes, who are mentioned as allies of the Ethiopians – a people especially hostile towards the Romans during the third century CE in the area of the Dodekaschoenos.⁸⁴ In other words, we can see here a sort of

‘historiographical pose’, adopted for a sense of realism,⁸⁵ and how, after all, this idealized depiction of Ethiopia is grounded in a real context of cultural and commercial exchanges.

Conclusions

In order to enhance the interest and plausibility of their stories, Ancient novelists blended literary account of the marvels and riches of India and Ethiopia (often based on earlier Classical and Hellenistic material), with the more recent (but genuine) mercantile information that derived from frequent trade contacts with these lands during the Roman period. Ancient novelists seem, in fact, to carefully consider some details, including minor ones (such as names and identifications), in order to make their stories more plausible with factual references that are familiar to their educated readers, either from their personal experiences with Rome’s eastern trade or from their readings.

In the case of Roman novels, the imagined conception of the distant East derived first and foremost from a range of exotic products imported at a great cost from Arabia, India and China (pepper, nard, silk). There was a notion of decadence and excess associated with these eastern products in imperial times. Juvenal said that ‘luxury is more savage than arms’;⁸⁶ and in a moment when the Roman Empire was at its peak, the influx of eastern products was at its greatest level (especially in the first century CE),⁸⁷ alongside the presence of foreigners at Rome. This expansion of the Roman economy led to the appearance of new trade opportunities. In that regard, Trimalchio in Petronius’ *Satyricon* would be the representative of those who managed to make great fortunes in risky trade ventures and other investments, and then flaunted his newly acquired wealth in extravagant displays that included such exotic products. In addition, as we have seen, references to eastern products are a way to emphasize the perils of the protagonists’ journeys and the dangerous and/or degrading forms of sexual intimacy that bind them with other evil characters.

In contrast, Greek novels seem to have a more positive conception of the East, probably as the writers have more recourse to the old Classical accounts of India than the Roman novelists. Such ethnographical tradition, as developed by Herodotus, Ctesias and the Hellenistic historians, depicted India as a land of wonders and wisdom. But in spite of being more idealistic, Greek novels present plots that included travels in Egypt and the Levant, where encounters with merchants and dealers, and with people from far-off countries, were also possible. In fact, they consciously linked their creation to the busy cosmopolitan environment of the main capital cities and seaports/emporia of the Roman East (Alexandria, Antioch, Koptos, etc.), where exotic spices and goods were held in huge warehouses. Besides, as we have seen exemplified with Heliodorus, those products also hinted at the unbelievable prosperity of exotic destinations precisely by means of their repeated references. In sum, the originality of the Greek novelists consists in devising their plots out of the culture of the bazaar, which lay beneath the high Classical tradition, blending genuine mercantile information

with enticing stories of pirates, Indian kings, unbelievable riches and idealized countries in faraway lands.

Notes

- 1 On Ctesias' *Indica*, see Lenfant (2004), Nichols (2011). See also, in general, Karttunen (1989) and Parker (2008): 11–33.
- 2 On Alexander's eastern campaign, see Eggermont (1975) and (1993), Bosworth (1996), Holt (2003) and (2005). On the so-called 'Alexander's legend' and its sources, see Merkelbach (1977) and Stoneman (2012). Among the travellers, we should mention Megasthenes, the Seleucid ambassador to the court of Chandragupta Maurya. See, in general, Karttunen (1997) and Parker (2008): 33–65.
- 3 That a lot of the Indian *mirabilia* in Philostratus derives from Ctesias is an old conclusion: Hans Rommel (1923). But the story of Alexander and the gymnosophists (Plut. *Alex.* 64) was also an independent episode of certain popularity, as shown by some papyri: *P. Gen. Inv.* 271 (+ *P. Duk. inv.* 777), *P. Berol. inv.* 13044 and *PSI* 7.743. See Willis and Maresch (1988), Bosman (2010), and Stoneman (2012): 77–83. In fact, the Gymnosophists or Brahmins constituted a common topic, even in rhetorical exercises: D. Chr. 35.18–22, Apul. *Flor.* 6 and 15, Luc. *Fug.* 6.19–7.4 Ael. *VH* 3, 20, etc. For such interest in India as a land of wisdom, see also Karttunen (1997): 55–64 and Parker (2008): 251–307. For Philostratus' Apollonius and India, see Merkelbach (1977): 156–161, Anderson (1986): 199–215 and also Elsnér (1997), Jones (2001) and Abraham (2014).
- 4 Strab. 15.1.73 DC 54.9. This Indian Brahmin did the same as the gymnosophist Calanus in front of Alexander and his troops: Arr. *Anab.* 7.3.1–6 and Plut. *Alex.* 69.6–9. Curiously enough, literary sources largely refer to Indian (and other eastern) embassies coming to the Roman world, but they rarely allude to the reverse. See Speidel (2017).
- 5 On Rome's eastern trade (maritime and overland routes), see Charlesworth (1924): 16–73 and 98–111, Warmington (1974), Raschke (1978), Sidebotham (1986), Young (2001), Liu (2010), McLaughlin (2010), (2014) and (2016). See also the edited studies in Begley and De Puma (1991), Reade (1996), Boussac and Salles (2005), and De Romanis and Maiuro (2015). Choïsnel (2004) deals with the role of the Parthians in the Silk Road. Sidebotham (2011) focuses on the archaeology of one of the Red Sea ports, Berenike. See also in general Parker (2008): 147–202.
- 6 See Plin. *HN* 6.84–91. On this story, see Sidebotham (1986): 32–33, Young (2001): 28, McLaughlin (2010): 54–55, 117–120 and (2014): 196–200. On the freedman Annii Plocamus, see Rathbone (1983) and Tchernia (1997). For Roman contacts with Sri Lanka in general, see Weerakkody (1997); De Romanis (1997); and Faller (2000).
- 7 The *Periplus*: Casson (1989) and Belfiori (2004). Studies in Boussac, Salles and Yon (2013). See also Parker (2008): 98–100.
- 8 Isidorus' *Parthian stations*: Belfiore (2004): 245–266. Spasinou Charax: Schuol (2000).
- 9 *Omnia falsa* (Plin. *HN* 12.42.86). See also Strab. 15.1.2; Ptol. 1.11.7–8.
- 10 ἄλλ' ἐμπόρων τε καὶ ναυκλήρων κακοδαίμονέστερόν τι ἐρεῖς ἔθνος (Philostr. *VA* 4.32).
- 11 διαβάλλουσιν . . . τὸ Ἑλλήνων γένος (Philostr. *VA* 3. 32.). Apollonius comes overland but knows of visitors coming by sea: Philostr. *VA* 3.20 (Egypt), 6.16 (Ethiopia). Products: Philostr. *VA* 2.20 (*byssus* imported from Egypt), 2.14 (tigers exported presumably to Rome). βύσσος was a very expensive material from the filament of a mollusc, the *Pinna nobilis* sometimes compared with the Chinese silk: Strab. 15.1.20 and *Edictum de Pretiis Maximis* 25.6. Chinese sources also refer to the βύσσος as 'Egyptian cloth': *Hou Hanshu* 88. 12. See Raschke (1978): 908 n. 1028 and Casson (1989): 292–293. Trade intermediaries were not only Egyptians, but also Palmyrenes and Nabataeans. See mostly Millar (1998), but also Charlesworth (1924): 48–49 and 53–54, Warmington (1974): 97–105, Ball (2000): 60–87 and 397–398, Young (2001):

- 81–168 and 202–216, McLaughlin (2010): 61–81, 95–97, 104–106, and (2014): 50–58, Sidebotham (2011): 209–212.
- 12 Longus of Lesbos mentions the Indians being conquered by the god Dionysus (Long. 4.3.2), as a motif decorating an altar. See Parker (2008): 81. For the Ancient novel, see Hägg (1983), Schmeling (1996), Panayiotakis, Zimmermann and Keulen (2003), Holzberg (2005), Whitmarsh (2008), and Cueva and Byrne (2014).
- 13 *Tam magnus ex Asia veni* (Petr. 75.10). On Trimalchio's name and its Semitic origin (*malk*, 'king'), see Priuli (1975): 36–41 and Bremmer (1981).
- 14 On Trimalchio's status and activities, besides the classic articles by Schnur (1954) and Veyne (1961), see also D'Arms (1981): 97–120, Duncan Jones (1974): 238–248, and Lo Cascio (2007): 8–11. On the economy and the Ancient novel, see Scarcella (1996).
- 15 Women involved in Rome's eastern trade: *SEG* VIII. 703. Loan agreement for a trade venture in India: *P.Vindob.* G 40822 (the *Muziris Papyrus*). See Casson (1986), (1990) and Rathbone (2001). On the question of power and profit, see Schörlé (2015). In general, see also Young (2001): 48–57, McLaughlin (2010): 38–40, 157–158 and (2014): 89–94.
- 16 For other similar puns, see Perkins (2005). Andreau (1994: 44) notes that there was a *C. Sulpicius Cinnamus*, freedman and businessman at Puteoli from Tiberius' time to Nero's. See also Maiuri (1945): 235–238. But there is also a perfume dealer named *Cinammus* in Martial's epigrams (Mart. 6.64 and 7.64), and probably his was a comic nickname, as Martial knew that cinnamon was used in the concoction of perfumes (Mart. 3.55, 6.55).
- 17 On the spice trade see Miller (1969), De Romanis (1996). See also Cobb (2013): 139–141.
- 18 On this criticism of the tastelessness of the uneducated newly rich, see Conte (1996): 104–139. Also specifically on the language of the freedmen, as betraying their lower origins, see Boyce (1991): 94–102.
- 19 Pliny (*HN* 12.41.84) specifies that one hundred million sesterces were spent each year on spices, aromatics and other luxuries from the East. On this rhetoric of excess, see Raschke (1978): 622–637, Dalby (2000): 178–200, Young (2001): 181–191, Parker (2002): 55–61 and (2008): 165–171, McLaughlin (2010): 141–155, Fitzpatrick (2011): 31–33. Cobb (2013: 147–151) argues that this luxurious display was nonetheless required as marker of a superior social status.
- 20 Tac. *Ann.* 16.18. On Petronius' taste for lavish expenditure, see further Plin. *HN* 37.8.20 and Plut. *Mor.* 60E.
- 21 *Luxuriae ructu Martis marcent moenia/ Tuo palato clausus pavo pascitur* (Petr. 55.1–2) ... *margarita cara bacam Indicam* (Petr. 55.9). Poems dealing with the topic of Rome's luxuria and trade beyond the imperial frontiers are the poems in Petr. 55.6, 93.2, 135.8 and, of course, the *Bellum Civile* (Petr. 119–124). The whole poems have been edited and commented on by Courtney (1991) and Connors (1998). See also Setaiuoli (2014).
- 22 *Aes Ephyreiacum laudabat miles in unda;/ quaesitus tellure nitor certaverat ostro;/ Hinc Numidae accusant, illinc nova vellera Seres/ atque Arabum populus sua despoliaverat arva.* (Petr. 119. vv.9–12).
- 23 *Ebur atria vestit,/et subfixa manu foribus testudinis Indae/ terga sedent* (Luc. 10.119–121).
- 24 *Removete, famulae, purpura atque auro inlitas /vestes, procul sit muricis Tyrii rubor, / quae fila ramis ultimi Seres legunt* (Seneca *Phaedra* 387–389).
- 25 On the 'literary feud' between Seneca, Lucan and Petronius, see Sullivan (1985) and (2006). On Petronius' *Bellum Civile* and its models see Grimal (1977): 44–97 and 261–292, Connors (1998): 100–146, Schmeling (2011): 453–470.
- 26 *ignotos miscuit amnes,/Persarum Euphraten, Indorum sanguine Gangen* (Luc. 10.32–33).

- 27 See Augustus' *RG* 31.1–2; and also Virg. *Aen.* 8.704–706, Hor. *Carm.* 1.12.53–57, 3.24.1–2, 4.14.41–52 and Prop. 2.9A.29–30, 2.10.13–18, 3.4.1–4. On the rhetoric of empire and the specific role of India within it, see Fitzpatrick (2011); Sidebotham (1986): 139–140; and Parker (2008): 208–223.
- 28 Like Petronius' supposed 'enemy', Seneca. See Motto 1966.
- 29 *Negotiatores*: 1.5.3–5. (Aristomenes and Lupus), 2. 13.3 and 14.4 (Cerdo). Markets: 1.24–25, 2.2 (forum of Hypata), 7. 23.4 (*mercaturum*).
- 30 Merchants of ivory and citrus wood (*eborarii* and *citriarii*) formed part together of an exclusive *collegium* in Rome: *CIL*. VI n° 33885 = *ILS* n° 7214 = *FIRA III* n° 33 (under Hadrian).
- 31 *Serviles . . . voluptates* (Apul. *Met.* 11.15.1).
- 32 See Greene (2008).
- 33 A curious pun in the naming of Milo's wife. See Hijmans (1978): 109–110.
- 34 The latest reference for the *Coae vestes* is Plin. *HN* 11.76–78. Chinese silk was sold in the Indian harbour towns of Barbarikon (*Periplus* 39.13.11), Barygaza (*Periplus* 49.16.30) and Nelkynda/Muziris (*Periplus* 56.18.24). See Casson (1989): 260. Contacts between China and India, see Liu (1988). India's silk industry: Gopal (1961). Silk production and trade in the Roman Empire: Hildebrandt and Gillis (2017).
- 35 *ne vestis serica viros foedaret* (Tac. *Ann.* 2.33.1).
- 36 *quibus sumptis parum liquido nudam se non esse iurabit* (Sen. *Ben.* 7.9.5). See also Pliny *HN* 12.41.
- 37 *mitellis et crocotis et carbasinis et bombycinis iniecti* (Apul. *Met.* 8.27.1).
- 38 *deamque serico contextam* (Apul. *Met.* 8.27.2).
- 39 *Lectus Indica testudine lucidus, plumea congerie tumidus, veste serica floridus* (Apul. *Met.* 10.34.4). The description of the bed runs somewhat parallel with the Greek original story: κλίνη ἤν μεγάλη, ἀπὸ χελώνης Ἰνδικῆς πεποιημένη, χρυσῷ ἐσφηκωμένη (Lucian *Onos* 53). However, the Latin version presents a more elaborate isocolic tricolon with rhyme and chiasmus: *Indica testudine* (adjective-noun)/ *plumea congerie* (adjective-noun)/ *veste serica* (noun-adjective). Like the Chinese silk, the shell of the Indian turtle (which was found in the River Ganges) was also an extravagant and expensive luxury much in vogue with the affluent Romans.
- 40 *figuras fortunasque hominum in alias imagines conversas et in se rursus mutuo nexu reflectas* (Apul. *Met.* 1.1.1).
- 41 On this prologue see James (1987): 25–41, Harrison (2003): 240–241, and Harrison and Winterbottom (2001): 11–12.
- 42 *caelum deponere . . . fontes durare . . . Tartarum ipsum illuminare* (Apul. *Met.* 1.8.4).
- 43 *caeli luminosa culmina, maris salubria flamina, inferum deplorata silentia nutibus meis dispenso* (Apul. *Met.* 11.5.1).
- 44 For further discussion on the use of spices in magic (connecting Apuleius with the papyrological evidence), see Pollard (2013): 10–20.
- 45 See Cobb (2013): 143–147 for spices in religious and funerary rites. See also, in general, Groom (1981) and Peacock and Williams (2007).
- 46 For the East Mediterranean/Near Eastern setting of many of the Greek novels, see Kuch (1996), Romm (2008). For even what would be a cultural 'fusion' of Greek traditions with eastern ones, see Whitmarsh (2010): 404–411.
- 47 Photius *cod.* 87 and *Suda* s.v. Ἀχιλλεύς Στάτιος.
- 48 For example, in the case of the prejudice that the Indians are black because they live in the East and are exposed to the sun: Ach. *Tat.* 4.5.1 with Hdt. 3.98 and 104. Achilles Tatius also takes pleasure in digressions on the elephant (Ach. *Tat.* 4.3–4) and the Καρυόφυλλον (Ach. *Tat.* 4.5.2–3), the 'nut-leaf' or the *malabathrum*.
- 49 See Charlesworth (1924): 51–56; Warmington (1974): 271; Ball (2000): 174–175; Young (2001): 174 and 187; McLaughlin (2010): 93.
- 50 For the βούκολοι in Roman Egypt, see Baldwin (1963), Davies (1973), Alston (1999), and Rutherford (2000).

- 51 On Xenophon and Alexandria, see Griffiths (1978). Dio mentions the abundance of products of every land at Alexandrian harbors; and how Bactrians, Scythians, Persians and a few Indians, all made up his audience in the theatre there: D.Chr. 32–36 and 40. On Alexandria and Rome's eastern trade, see Charlesworth (1924): 27–31, Casson (1989): 13–14, Ball (2000): 150–156, Young (2001): 51–52, McLaughlin (2010): 23–24.
- 52 *Periplus* 49. In fact, female prostitutes paid a quite heavy tax at Koptos on their way to India, especially in comparison with other women: γυναικῶν πρὸς ἐταίρις/μον δραχμὰς ἑκατὸν ὀκτώ, / <γ>υναικῶν εἰσπλεουσῶν δραχμὰς εἴκοσι, γυναικῶν στρατι/ωτῶν δραχμὰς εἴκοσι (*OGIS* 674.16–20). On the Koptos Tariff, see Sidebotham (1986): 80–82; Young (2001): 48–50; Adams (2007): 132–133; McLaughlin (2010): 29, 37–39 and (2014): 82, 90. In a mime, preserved on a papyrus from the second century CE (*P.Oxy.* 3.413), the hero of the play travels to India aboard a Roman ship to rescue his sister from the hands of a king. See Santelia (1991) and Andreassi (2001).
- 53 See *LSJ* s.v. ψάμμος. In Classical Greek literature, Ψάμμις is the name of Persian noble (Aesch. *Pers.* 95) and of an Egyptian pharaoh (Hdt. 2.159–161). See Hägg (1971): 42. On the episode of Psammis, see also Whittaker (2004): 156–157, Parker (2008): 80–110; McLaughlin (2010): 155–156 and (2014): 106–107.
- 54 For the role of Koptos in the Red Sea trade, see Ballet (2000) and Boussac, Gabolde and Galliano (2002).
- 55 Donkeys and camels as burden animals in the Eastern Desert: Plin. *HN* 6.26.102, *OGIS* 674.21–28 (Koptos Tariff), *P.Vindob.* G.40822.1–6 (*Muziris Papyrus*). Camel drivers were mostly Nabataeans. See Young (2001): 57–58.
- 56 On these, see mostly the edited volumes by Cuvigny (2005) and (2006).
- 57 For written and archaeological evidence relating to the presence of Indian merchants at the Red Sea ports, see Salomon (1991) and Tomber (2007).
- 58 The many geographical indications in Egypt are an indication of the author's concern for certain pretence of realism. See Robiano (2011): 133–136. For trade routes between Egypt and the Red Sea, see Sidebotham (1986): 54–67 and 83–92; and Adams (2007): 17–46 and 220–253. See also Charlesworth (1924): 19–24; Casson (1989): 13–14 and 14 n.11; Young (2001): 25–80; McLaughlin (2010): 23–33 and (2014): 73–87; and Sidebotham (2011): 125–174.
- 59 The chronology is established with parallels between Heliodorus' account of the siege of Syene in book 9 and Julian's account of the siege of Nisibis by King Sapor II in 350 CE (*Oratio* 1 and 3). Some believe that Heliodorus imitated Julian: Lacombrade (1970). Others believe that the contrary was the case: Maróth (1979) and Szepessy (1976). Feuillâtre (1966: 147–148) was the only one to argue for the reign of Hadrian as the date of the novel.
- 60 Note that this philosophical sect was normally associated with India (at least in Hellenistic and early Imperial texts), but we have notable exceptions, such as this novel. The Gymnosophists in Heliodorus are presented as a high council (Hld. 10.2.1, 31.1) with a president (Hld. 10.11.1) and counsellors (Hld. 10.2.1, 10.1, 35.2). See Robiano (1992). On this confusion between Ethiopia and India in the ancient sources, see generally Schneider (2004) and (2016).
- 61 ἀνὴρ Φοῖνιξ Ἑμιστηνός, τῶν ἀφ' Ἡλίου γένος, Θεοδοσίου παῖς Ἡλιδόωρος. (Hld. 10.41.8).
- 62 ... πλεῖν δὲ ἐπὶ Καρχηδόνα τὴν Λιβύων, ὀλκάδα μυριοφόρον Ἰνδικῶν τε καὶ Αἰθιοπικῶν καὶ τῶν ἐκ Φοινίκης ἀγωγίμων φέροντες (Hld. 4.16.6). Phoenicians in Heliodorus: Hld. 4.16.3–10, 17.1, 5.17.1, 18.2–3, 19.1–3, 27.9, 29.2., 7.19.5, 10.41.3. See Briquel-Chattonet (1992) and, specifically, Bowie (1998).
- 63 ὥς αὐτὸς ἔρασκε γαμετῇ τῇ ἐκείνου συμπαιστρίαν καὶ συνόμιλον τὰ Ἑλλήνων ἐσομένην (Hld. 2.24).
- 64 The example of Heliodorus is discussed in Hägg (2000): 353 n. 22.

- 65 καθ' ἱστορίαν τῶν καταρρακτῶν τοῦ Νείλου (Hld. 2.29.5). Whitmarsh (1999: 25) links this emphasis on 'research' with the fascination that the Nile held for the father of 'history', Herodotus (Hdt. 2.34).
- 66 φύλλα τινά σε καὶ ρίζας . . . τῶν Ἰνδικῶν καὶ Αἰθιοπικῶν καὶ Αἰγυπτίων ὠνούμενον ἑώρακα (Hld. 2.30.2).
- 67 ὄψει μὲν . . . ὅπως δὲ μὴ μικρόλογος ἔση περὶ τὴν ἀγοράν (Hld. 2.30.2).
- 68 μὴ βαρύτιμον εἶναι περὶ τὴν διάπρασιν (Hld. 2.30.2).
- 69 Hld. 2.30.3.
- 70 ἐπέταττεν ἀπέχεσθαι τῶν σμαραγδαίων μετάλλων ὡς Αἰθιοπία προσηκόντων (Hld. 2.32.2).
- 71 Emerald mines in Heliodorus: Hld. 2.32.2, 8.1.3, 9.26.2, 10.11.1. Gold and other precious gems in Heliodorus: Hld. 1.3.2, 1.22.3, 2.17.2, 5.19.1–2, 8.18.8. Most of the mines were on the *Smaragdus mons*, at a distance of 25 days' journey from Koptos: Plin. *HN* 37.69 and *OGIS* 717 (Inscription at Edfu). On these mines, see Sidebotham et al. (2004); Harrell and Bloxam (2010). On the historical background, see Hägg (2000): 212–214.
- 72 This fabric is said to be produced by spiders (Hld. 10.25.8), as in the very few ancient sources that seemed to be best informed about the origin of Chinese silk: Paus. 6.26.6–7 and Philostr. *Imag.* 2.28.
- 73 Hld. 9.24.2.
- 74 The unnamed Phoenician merchant or the Persian princess Arsake will try to dispose the protagonists favourably towards them with displays of wealth and luxury, being typical the mentions of silken raiment, purple robes and precious stones: see Hld. 5.19.1–2 and especially 7.2.1–27.4.
- 75 οἱ τῆς κινναμομοφόρου (Hld. 9.16.2, 9.19.2, 9.19.3). οἱ Ἀράβων τῶν εὐδαιμόνων (*Arabia Felix*): 10.26.1.
- 76 φύλλου τε τοῦ θυώδους καὶ κασίας καὶ κινναμόμου καὶ τῶν ἄλλων οἷς ἡ Ἀραβία γῆ μυρίζεται (Hld. 10.26.1).
- 77 οἱ Σηρῶν . . . πρεσβευνταί (Hld. 10.25.8). Silk was usually dyed in bright colours: Plin. *HN* 21.11. For the word φοινικοβάφης (dyed in purple), see also Hld. 3.3.5 and Philostr. *Epist.* 3.36.
- 78 οὗτοι μὲν δὴ τοῦ Αἰθιοπῶν γένους αὐτοὶ τέ εἰσιν οἱ Σῆρες (Paus. 6.26.9). Dark-skinned Chinese: *Vela Colorati qualia Seres habent* (Ovid. *Am.* 1.14.6) . . . *hi quoque, Seres, / Aethiopumque feris alieno gurgite campos* (Luc. 10.291–292).
- 79 For the Troglodytes, see Strab. 16.4.4–5 and Plin. *HN* 6.33.163–6.34.176. On the problems posed by them in Roman times, see Cuvigny (2005).
- 80 Hld. 8.16.4, 9.16.2, 10.26.2 = Hdt. 4.183 (Ethiopian Τρωγοδύται); Hld. 10.26.2 = Hdt. 3.102–105 (ant-gold from India and Ethiopia); Hld. 10.26.2 = Hdt. 3.116.1, 4.13.1 and 27.1 (Griffin). On the legend of the gold-digging ants, see Li Causi and Pomelli (2001–02).
- 81 Hld. 10.27.
- 82 'Indian camels with the colouring of leopards' (as in Paus. 9.21.2). The confusion could also be because those animals were imported via Egypt, as shipped from Alexandria: Varro *Ling.* 5.100. One giraffe marched with animals from Ethiopia, India and Arabia in a procession of Ptolemy II: Athenaeus 5.201c. The animals continued to be shown in Rome, as in Aurelian's triumph in 273 CE: *SHA Aurelianus* 33.4 (see also *infra*). See Gatier (1996).
- 83 According to the *Periplus* (5–6), King Zoskales (possibly a ruler of Axum) controlled the ports of Ptolemais on-the-Hunts and Adulis and was well known to Roman traders during the first century CE as a shrewd bargainer. For the Mediterranean trade with Ethiopia (Meroë and Axum), see Young (2001): 31–33; McLaughlin (2010): 65–69; and, in general, Bowersock (2013). On the connection of Meroë to the Indian Ocean trade, see Haaland (2014).

- 84 Blemmyes: Hld. 9.16.3, 9.17.2, 9.18.1–6 (Battle of Syene), 10.26.2–3 (embassy). Aurelian (270–275 CE) subdued the Blemmyes and in his triumphal procession exhibited them: See *SHA Aurelianus* 33.4. The Emperor Probus (276–282 CE) rescued Koptos and Ptolemais and sent captives back to Rome, where he celebrated a triumph over the Blemmyes: see *SHA Probus* 17, 2 and 19.2. See Snowden (1970): 136–140; Bowersock (1994) and (1997): 149–160. On the Blemmyes in general, see Dijkstra (2012); and Pierce (2012).
- 85 For this ‘historiographical pose’ with allusions to familiar ethnographic knowledge, see Morgan (1982), but also Feuillatre (1966): 122–142; and Elmer (2008): 419–429.
- 86 *saeuior armis luxuria* (Iuv. 6.292–293).
- 87 See Cobb (2015).

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11 Between Egypt and India

On the route of the Ancient novel

Marco Palone

Various forms of contact between the Indian and the Hellenistic worlds existed from the fourth century BCE to the fourth century CE, and in different ways have been registered in both the Ancient Greek novel and its corresponding Indian genre: the *kathā*. At one level, the evidence attests to frequent, if often superficial, exchanges between cultures. At a second level, which will be explored in this chapter, these exchanges took place in a deeper manner which implies a sort of literary mediation.

References to India in the Ancient Greek novel

Starting with the more ‘superficial’ first level, it is possible to find a number of allusions to India and Indians (as well as Ethiopia and Ethiopians) in the Greek novels of the Roman Imperial period. From Xenophon of Ephesus (second century CE) we know about a certain Indian Prince Psammiss,¹ who falls in love with the heroine of his novel (*Ephesiaka*), Anthia. The name does not sound Indian at all. The Indian origin, however, hints at exoticism and testifies to the scarce knowledge of India at this stage of the history of the novel. Some elements are to be noted:

- The contact with Psammiss is established through the merchants, who sell Anthia to the Indian prince – the latter also being a merchant (*Ephesiaka*, 3.11).
- ‘Since the barbarians are superstitious’ (δαισιδαίμονες δὲ φύσει βάρβαροι), Anthia exploits their beliefs, to reject the marriage proposal (she fakes having taken a chastity vow). So we can assume that the Indian were often imagined to be superstitious.
- Psammiss travelled to Ethiopia. This bond between Ethiopia and India will be discussed further below.

In Longus’ *Daphnis and Chloe* there are also a few references to Indian themes. At one point in the text (4.3.2), a Dionysiac temple is alluded to; this is said to contain various paintings. Among them are Semele, Ariadne, Lykourgos, Pentheus and ‘Indians being defeated, and Tyrrhenians being transformed’ – these elements

are all described as part of an *ekphrasis* (a description of a work of art through rhetoric). The Indian war of Dionysos alludes to a distant mythological past.

In the novel of Achilles Tatius, there are more references to India (*Leucippe and Clitophon* 2.14.9, 4.4.8); these often take the form of *thaumastà* (wonderful and strange things):

- The lake where gold can be fished (4.14.9): ‘It is a lake which resembles India.’²
- The perfumes which can cure the headache (4.4.8).
- India is closer to the sun (4.5.1).
- The black rose of the Indians is food for elephants (4.5.3).

In Heliodorus’ *Aethiopikà* there are more copious and more detailed references:

- India is associated with exotic wares; the priest Sisimitres appears in the clothes of a merchant of precious stones (2.30.2).
- A ship full of wares from India (4.16.6).
- Precious stones from India and Ethiopia (8.11.8).

In Heliodorus’ novel, the Gymnosophists and India are taken seriously for the first time, and they are not only an element of exoticism and *thaumastà*. The ‘naked wise men’ are a caste of priests in Ethiopia who derive their wisdom directly from India and are a clear image of the Indian Brahmins: like the Brahmins, the Gymnosophists are vegetarians and practice abstinence. The Gymnosophists and their chief, Sisimitres, have a key role for the positive ending of the plot. In fact, they persuade the Ethiopian king Hydaspes to abolish human sacrifice, and so save the life of Theagenes, the novel’s male protagonist.

Two ways of communication: land and sea

In passages of the novels cited above, a series of clues about the kind of contacts between India and the Hellenistic world emerge. The agents of these contacts are the merchants from both sides (as attested above in the novels of Xenophon, Achilles Tatius and Heliodorus) and the maritime route between India and Ethiopia, aided by the monsoon winds, serves as the channel for knowledge exchange. Strabo confirms this fact in his *Geography* when he relays Poseidonius’ account of Eudoxus of Cyzicus’ journeys to India in the second century BCE (2.3.5).³ Both for Eudoxus’ journeys and for the contents of the *Aethiopikà* by Heliodorus, Egypt and Ethiopia have served as mediators between the Mediterranean world and India.⁴

The narration of tales and stories could have been a form of entertainment during long sea journeys.⁵ In fact, as attested in other sources, storytelling was considered a useful means of diversion for travellers:

- Heliodorus’ *Aethiopikà* (6.2.2): ἡμῖν τὸν πόνοντις ὁδοιπορίας ἐπικουφίζων καὶ τῷ διηγῆματι παραπέμπων (‘Making our journey less arduous and helping us on our way with your story’).

- Achilles Tatius (3.20) mentions an Homeric singer among the passengers of the ship.
- Apuleius' *Golden Ass* (1.2): *simul iugi quod insurgimus aspritudinem fabularum lepida incunditas levigabit* ('And an agreeable and amusing yarn or two will lessen the steepness of this hill, we're climbing' (transl. by E. J. Kenney 2004).

Cross-cultural communication also occurred by overland travel, and perhaps most significantly, Alexander the Great's eastern campaigns and their aftermath helped to develop notions of India in the Graeco-Roman imagination, and to some extent, the Yavanas in the Indian imagination (the term *Yonaka*, originally deriving from the Persian term for Ionians (transmuted to *Youvana* / *Yona*) is used, at least initially, to denote Greek speakers).⁶ Indeed, Alexander's 'adventures', which are described in the novelistic *Alexander Romance* by Pseudo-Callisthenes, did not remain confined to the Greek world, but over time versions of the texts appeared in many languages. Elements of Alexander's itinerary frequently influenced Graeco-Roman literary representations of India and Indians, including the genre of the novel. For example, Hydaspes – the king of Ethiopia in Heliodorus' work – takes his name from the river that Alexander crossed in order to fight the Indian King Porus.

The *Alexander Romance*, the Greek original of which probably precedes the Common Era, also includes a dialogue between Alexander the Great and the naked philosophers (Gymnosophists) from India (3.5);⁷ these consist of a quick sequence of questions and answers, according to the Cynic model of the diatribe, on various topics (power, kingship, richness, war and peace). In the narrative, Alexander appears to be familiar with wisdom and philosophy (in particular about the role of Providence). By way of interesting parallel, another Greek figure, King Milinda (referred to in Graeco-Roman sources as Menander, reigning probably around 155–130 BCE) made an impression on Indian cultural memory (specifically in Buddhist literature); he is also said to have engaged in philosophic dialogue with the Buddhist sage Nagasena. These elements of Graeco-Roman Indography, seen in the *Alexander Romance*, and a range of other genres (history, biography, geography, etc.) clearly had an influence on the novel.⁸ For example, the theme of a ruler engaging with wise men also makes its way into Heliodorus' *Aethiopikà* where King Hydaspes engages with Sisimitres.

A further potential (in)direct influence on the later (second stage) ancient Greek novels (for instance, Achilles Tatius and particularly Heliodorus who shows more passages related to India) can be found in the *Life of Apollonius of Tyana*, by Philostratus (early third century CE). In this work, India is the destination of a particular journey and of an exploration of the protagonist (books 2 and 3). The Gymnosophists are also mentioned here, and they clearly appear as the Greek reading of the Indian Brahmins.⁹ However, the work of Philostratus cannot be regarded as a narrative, and does not belong to the genre of the novel: it lacks many of the main features of the genre, and actually contradicts the 'conventions' of the typical novel: i.e. there is no love story, the protagonist's safety is never at stake, there is no *plot*, but a list of encounters and circumstances, and there are long

passages of ‘lessons’ about politics, philosophy and morality. There are also historical references to events and dates, and in particular to personalities of the Roman history (Nero), which are normally avoided in the Greek romances. However, the *Life of Apollonius* could very likely have influenced the authors of the ‘sophistic’ stage of the Greek novel, even though it is not itself a novel. The journey of Apollonius of Tyana seems to retrace the stages of Alexander’s conquest via land. Interestingly, in this same period there are also references to the Greeks in the *Bṛhatkathā*.¹⁰

The Indian kathā and the Ancient Greek Novel

Having examined the first (superficial) level of ‘Indian’ influence – or rather imaginative ideas about India that developed in the Graeco-Roman world – on the Greek novel, it is now worth considering the more complex, structural similarities between elements of the Greek novel and Indian kathā. In doing so, it may be possible to get a sense of deeper contact between the cultures of the Mediterranean world and South Asia which are particularly apparent from a closer reading of the texts, and how this can be discerned from a consideration of particular features of the Indian kathā and the Greek novel. In order to do this, an outline of the development and nature of Indian kathā is required.

The original Indian kathā (i.e. the novel) was first written in the Prakrit language (for instance the *Paiśācī* literary language, predecessor of Sanskrit) and thereafter in Sanskrit, which is better known, because Sanskrit literature is better preserved. However, the first stage of the kathā’s transmission was probably oral for an extended period, before being fixed in writing.¹¹ A common distinction between the Prakrit and the Sanskrit editions is the intended audience. While the Prakrit and the orally transmitted ‘texts’ could have been intended for a popular and wide audience, the Sanskrit versions were restricted to a more aristocratic and refined audience, though this seems to occur at a later period (c. ninth century CE).

According to Lacôte, the name ‘kathā’ recalls its etymological meaning of ‘answer to a question (how?)’,¹² because it is an oral tale, performed by a storyteller.¹³ The ancient collections of kathās are now readable in later redactions, for example in the *Pañcatantra* (whose forerunner was in Prakrit, but was originally also oral) which was then inserted in the tenth *lambaka* (book) of the *Kathāsaritsāgara* (the ‘Ocean of the rivers of the stories’) by Somadeva (ninth century CE).

As in the *Pañcatantra* (पञ्चतन्त्र), embedded narratives also appear frequently in the kathās. These tales, however, show some regularities. First, they are often told by a character who had first-hand experience of the events he or she reports. So the nested narratives are almost always in the first person. This feature is also found in the *akhyayika* (another narrative genre of the ancient Indian literature). An example of this feature also appears in the *Kādambarī* (कादम्बरी), which dates to the seventh century CE, but may even trace back to a previous edition in Prakrit, and even to a previous oral stage.

The feature of first-hand story-telling is not always detectable, probably because the kathās we read today are reworked version of reworked versions. But the

ancient treatise on Sanskrit poetics by Dandin (the *Kāvyaadarśa*, sixth century CE), confirms this feature of the kathās.¹⁴ It is true, however, that very often and still in the versions we read, many dialogues are reported, confirming the ‘dialogic’ nature of the kathā.¹⁵

The kathā begins with an introduction (*kathāmukka*) which is generally given by the author or by his intermediary who explains the contexts of the narrative.¹⁶ Another interesting feature is that the embedded narratives normally maintain a connection to the frame story, and is not merely a pretext like that found in the *Thousand and One Nights*, where the story of Sheherazade is only the frame of a never-ending series of stories. In the *Pañcatantra*, for instance, the animal stories are often related to the frame, i.e. the story of King Naravahanadatta, because they recall the relationship between the king and advisers.

In order to understand the kathā, it is necessary to observe the structure in which this genre has survived. In the *Kathāsaritsāgara* by Somadeva, a long narrative tradition and even entire collections of kathās merges, for example the *Pañcatantra* and the *Bṛhatkathā*. The latter dates back to the *Bṛhatkathā* by Guṇāḍhya (second century BCE),¹⁷ who probably collected narratives belonging to a long oral tradition.

An example of this embedded structure of the *Kathāsaritsāgara* follows. In the first *lambaka*, the first narrative layer consists of Somadeva’s tale, the main frame of the story, which concerns Śiva and his wife Parvati, who are on the Kailash Mountain. Śiva tells her the story of the seven emperors (*vidhyadara*) which only she is allowed to hear (second layer). But Puspadanta, Śiva’s attendant, secretly listens to the story. Once he and his accomplice Malyavat are discovered, they are punished by the goddess with a curse: Puspadanta will be born as a man (named Vararuci-Katyayana) and will be free from the curse only once he tells the whole story to a *pisaca* (demon) named Kanabhuti (third layer). Malyavat, also born as man named Guṇāḍhya, must meet Kanabhuti, listen to the story (told in *Paiśācī*) and then tell it to the world (fourth layer): only then will he be free from the curse. After many adventures, Guṇāḍhya succeeds in hearing the story but cannot tell it to the king Satavahana (who initially refuses to listen to the story, because it is written in blood on a manuscript and in *Paiśācī*, a literary language which will eventually be replaced by Sanskrit). By now, desperate, Guṇāḍhya tells the story to the animals of the forest because no humans will listen to him (fifth layer), and he begins to burn the pages of the manuscript. With Guṇāḍhya nearly finished with his task, the king Satavahana changes his mind, and Guṇāḍhya manages to save the last seventh of the manuscript, i.e. the story of the seventh emperor, which is the *Bṛhatkathā*, the ‘Great Story’, whose protagonist is the king Naravahanadatta. The plot of the ‘Great Story’ in turn entails the kidnapping of his favourite wife and her recovery after various adventures. The king’s adviser, Gomukha, tells animal stories (sixth layer, i.e. the *Pañcatantra*); in his narration, in turn, there are other nested tales (seven and more layers). The animal-characters often recall the characters of the frame (the king’s court) and they often appear in the tales they tell (the lion appears in the tale of the lion, the jackal in the jackal’s tale, etc.).¹⁸

The relationship between the narrator of a certain layer and the narratees of the same or of other layers is also a particular feature of the embedded narratives.

Some observations:

- The story changes form and language (from the oral narration – probably in Sanskrit from Śiva to Parvati) to the oral *Paiśācī* from Kanabhuti to Guṇāḍhya and then in the written *Paiśācī* from Guṇāḍhya to Satavahana and again in Sanskrit.
- The content of the story told in the first *lambaka* (the *Bṛhatkathā*) is not the same for the last (in chronological order) narrators: Somadeva and the king Satavahana, because the original story was seven times bigger than the last one.
- All the narrators (apart from Somadeva) are also characters, not of the main story (the *Bṛhatkathā*), but of the frame of the first *lambaka*, in which stories other than the main story are nested.
- The narrative act is not only the pleasure of Śiva and Parvati, but also a curse for men, and since it was illicitly heard, the story reaches the world of men, passing through the demons' world.
- The *Kathāsaritsāgara* by Somadeva corresponds to the aesthetic ideal of the 'rasa', according to which the author triggers the emotions and the aesthetic involvement of the audience (the *rasika*), towards reflections about the 'impermanent'.¹⁹ The adventures of the protagonists are a sign of the crossing of the different reincarnations and prefigure the liberation from the reincarnations toward the final fusion into the Absolute.²⁰ Each character has particular features, according to his dharmic role.
- The *Pañcatantra* includes the tale of the donkey with the lion skin, which can be found both in the Aesopic corpus of fables (Aesop. 199 Hausrath) and *Kathāsaritsāgara* X, 6.²¹
- It is not easy to date the origin of these types of tales in Indian literature, as they often existed in an earlier oral form – this initial oral stage being very difficult to date precisely.²²

Similarities

Having outlined the features of the *kathā*, it is possible to observe a number of broad similarities with the Greek novel in terms of content and plot. For instance, the adventures of the protagonists, separation and reunification of the lovers, marvels (*thaumastà*), attempts to compromise the fidelity of the lovers, and praise of honest kings (which in the Greek novel appears in the Ethiopian story: i.e. for the king Hydaspes).²³ Several similarities can be also found in the Greek and Indian fables (see Adrados and Graverini),²⁴ but these can be considered only similarities of content and cannot be taken as evidence of deeper cultural exchange.

The more interesting and significant similarity can be seen with the presence of embedded narratives. The 'embedded narrative' is defined here as a narrative structure which includes in the main plot a tale, which in turn includes another tale: that is, a *vertical* structure of tales within tales. On the other hand, there exist other embedded narratives with a horizontal structure, i.e. many tales 'au pair' nested in a frame, as in Boccaccio's *Decameron*. But in the novel/*kathā*, the first type is found: vertical embedded narratives.

In Greek novels, these vertical embedded narratives are found in almost all the works that have survived, i.e. in the five complete novels and also in Antonius Diogenes and Iamblicus, whose summaries can be read in Photius' *Bibliothēke* (109a and 94). The *Marvels beyond Thule* are known through the mediation of Photius, who simplifies the complex structure of the novel. There is a frame story, which recalls a rediscovered manuscript, in which the main story is told by a narrator, who passes on the word to other sub-narrators. Photius normalises the structure for instance, not beginning from the *in medias res incipit*, but reconstructing the plot in a linear way and then explaining how the stories were nested into the frame. Another instance of this normalisation can be found in the summary of the *Aethiopikā* by Heliodorus, where the embedded stories are not mentioned: not affecting the primary line of the plot! In chapter 110b, Photius explains that the *Marvels* were a kind of prototype of the Greek novel ('source and root'); he places Antonius Diogenes in the third century BCE, but his dating is not reliable. In brief the structure of the novel is outlined in Table 11.1.

Table 11.1 Antonius Diogenes' *The Marvels beyond Thule*

	<i>Narrator</i>	<i>Tale (First/Third Person)</i>	<i>Narratee</i>
1st level	Antonius Diogenes (narrator omniscient) (although he negates the authorship of the novel)	In Isidora's letter, the narrator refers to the manuscript found by Balagrus in Dinias' tomb which tells the stories of Dinias himself.	Faustinus (epistolary narratee) Author's sister (epistolary narratee) Extradiegetic narratee audience
2nd level	Balagrus (epistolary homodiegetic narrator)	Balagrus tells how the manuscript which contains Dinias' adventures has been found during the conquest of Tyros by Alexander the Great.	Phile (Balagrus' wife) epistolary narratee
3rd level	Dinias (homodiegetic narrator) tells his story and asks Erasinides to write it.	The adventures and the love story of Dinias, in whose story appear other narrators: Derkillis, Mantinia, Azulis	Kymbas, the Arcad (homodiegetic narratee)
4th level	Dercillis, Mantinia, Azulis (homodiegetic narrators)	The narrators' stories are being told on the island of Thule. In Derkillis' narrative appears Astreus	Dinias (homodiegetic narratee)
5th level	Astreus (homodiegetic narrator, omniscient), tells Pythagoras' life and other stories told by Philotis	After the departure from Metapontos, Astreus predicts the destiny of the brothers (Derkillis and Mantinias) and tells Pythagoras' life story	Derkillis (homodiegetic narratee), but eventually all the narratees are recalled

Return: Photius each time specifies who is the narrator, the narratee and the setting, so recalling the narrative frame. We cannot be sure, however, if in the original text there were references to the return to the narrative frame.

At the first level, the extradiegetic narrator (Antonius Diogenes) tells his sister Isidora about a rediscovered manuscript, which has been found in the Balagrus' tomb. In a letter found in the tomb, Balagrus (second-layer narrator) writes to his wife about a manuscript, which contains the memoirs of a certain Dinias (third-level narrator). In the tale of Dinias, there appear sub-narratives told by Derkyllis, Azulis, Mantinias and Astreus, which correspond to narrators from the fourth level. In the narrative of Astreus, the tale of Philotis (fifth level) is embedded; lastly she tells the life of Pythagoras. The structure is a real 'matryoshka doll tale'.²⁵

The extant novels of the pre-Sophistic stage, Xenophon's *Ephesiakà* and Chariton's *Cherea and Callirhoe*, offer a few examples of embedded narratives, but for Xenophon it can be explained because of the likely epitomisation of the novel, which might have been a simplified version of the original.²⁶ In Achilles Tatius' novel, however, there appear several examples of embedded narratives.²⁷ The primary narrator speaks in the first person and passes the word on to the intradiegetic narrator (Clitophon), who sometimes inserts tales of other characters, but the nested tales do not go beyond the third metanarrative level. In Heliodorus, the eleven embedded narratives play an important role, but Photius does not notice this feature, and in his summary tries to simplify the structure.²⁸ Some of them enter the fifth metanarrative level; in particular, the so-called 'Knemon's tale' occupies a substantial part of the first half of the novel.

In the following example of embedded narrative from the *Aethiopiakà* (1.9–18; see Table 11.2), we can observe the closer interplay among the narrators and narratees at different levels. The first level has an extradiegetic narrator, at zero focalisation. In this frame, Knemon tells his story (second layer), which has homodiegetic narratees: Theagenes and Chariclea, whom are explicitly recalled in 1.10.2 [Τίνα με οἶεσθε γεγενῆσθαι ὃς καὶ νῦν ἐρυθριῶ διηγούμενος? / *You can imagine my reaction if even now I blush in the telling?*]. We can observe that in Knemon's story, there are characters who make allusions which seem to refer to the extradiegetic narratee of the first layer: the audience. One such example we find in a statement which Demainete makes [(1.10.2): «ὁ νέος Ἱππόλυτος, † ὁ Θησεὺς ὁ ἐμός †» / *My youth Hippolytos! (Theseus' son)*] an implicit prolepsis of the character which anticipates the end of the story: i.e. the death of 'Fedra' who is represented here by Demainete. Another expression refers to two narratees: the explicit one of the specific situation (Knemon tells to Theagene and Chariclea), and the implicit one (the audience): [(1.9.4): Καὶ τὰ μὲν ἄλλα τί δεῖ μὴκύνοντα ἐνοχλεῖν? / *Why should I bore you with all the details of what ensued?*]. In the story of Knemon, there also appears the tale (in the first person) of Demainete, who tells her husband about the harassment she suffered at the hand of her stepchild Knemon (1.10); this is the third narrative level, where we also find the direct speeches of Tisbes, of Aristippos to Knemon and the oration of Aristippos to the city assembly (1.13). In the last case, Aristippos offers a modified reconstruction of the story [τὸ ξίφος τῶν τούτου χειρῶν ἐκπεσεῖν παρασκευάσασα / *made him drop his weapon*], so recalling the attention of the narratees of the second layer (Theagenes and Chariclea) who already know Knemon's version [Ἐκπίπτει μου καὶ τὸ ξίφος τῶν χειρῶν / *the sword dropped from my hands*]; at the same time

recalling also the extradiegetic narratee of the first layer (the audience) which now realizes the mendacity of Demainete. Then Charias, Knemon's friend intervenes: he knows what happened in Athens and refers it to Knemon. He adds to the news a citation of Hesiod about the justice²⁹ which recalls the attention of the narratee of the third level³⁰ (Knemon), but also refers to the extradiegetic narratee of the first level. Charias refers in first person the tale of Demainete, which is the fourth narrative level, to whom Tisbes responds [(1.15.6):

ἔφη «τοῖς πολλοῖς μὲν ὁ Κνήμων ὑπεξῆλθε τοῦ ἄστεος καὶ τῆς Ἀττικῆς ἐξώρμησε τῇ κρίσει πειθόμενος, ἐμὲ δὲ ἅπαντα διὰ σέπραγματευομένην οὐκ ἔλαθεν αὐτοῦ που πρὸ τοῦ ἄστεος κρυπτόμενος.

For all most people know, Knemon has left the city and gone abroad in accordance with the verdict of the court; but I have been busy on your behalf, and I have discovered that he is in hiding somewhere near the city.

Here again the speech of Tisbes has both a real and direct narratee: Demainete but also, with an aphorism, the ideal extradiegetic narratee [(1.15.8): *πολλαῖς γὰρ κατὰ τὴν πρώτην πείραν ἑναπεσβέσθη τὰ τῆς ἐπιθυμίας· κόρος γὰρ ἔρωτος τῶν ἔργων τὸ τέλος· / for most women one consummation is enough to douse the fires of their desire: performance of the act slakes lust*]. In turn, Tisbes refers also the thought of Aristippos, which is the fifth narrative layer [(1.16.3): *Ὁ δὲ (προῦλελύπητο γάρ, ὥς οἶσθα, πρὸς αὐτῆς) ἔνδον εἶναι τότε με λέγειν τὸν μοιχὸν νομίσας / As you know, he had an old score to settle with her and, thinking that I meant that the lover was in the house*] and his direct speech, which is also in the fifth layer:

«Εἰ γὰρ ταῦτα οὕτως ἐπιδείξεις» φησὶν ὁ Ἀρίστιππος· «σοὶ μὲν ἐλευθερίας μισθὸς ἀποκείσεται· ἐγὼ δὲ τάχ' ἂν ἐπιβίωῃν τὴν πολεμίαν ἀμυνάμενος· ὥς πάλοι γε σμύχομαι ἐν ἑμαντῶ καὶ τὸ πρᾶγμα δι' ὑποψίας ἔχων ἀπορία τῶν ἐλέγχων ἡσυχάζον. Ἀλλὰ τί δεῖ ποιεῖν;»

'If you show me this as you promise', replied Aristippos, 'you will be rewarded with your freedom. Perhaps vengeance on a hated foe would breathe new life into me. For a long time now I have nursed smouldering suspicions, but I have taken no action for lack of proof.'

In the fifth layer, there is also a reference to the narrator of the third level (Charias) to the narratee of the same level (Knemon), who is also the narrator of the second layer [τοῦ μὴ γνωρισθῆναι αὐτὴν παρὰ σοῦ δῆθεν τοῦ ἐν Αἰγίνῃ διάγοντος. / *Demainete being recognised by you – though of course you were in Aigina all the time*]. Again we have another tale in the fifth layer: the direct speech of Aristippos, who falls prey to the machination of Tisbes: [(1.17.3): *«ἔχω σε» εἶπεν «ὦ θεοὺς ἐχθρά.» / 'You are caught, damn you!' (1.17.4); and Ὁ δὲ «θάρσει» ἔφη· «τὴν ἀλιτῆριον καὶ ἦν μάλιστα ἐβουλόμην ἔχω.» 'Don't worry' he replied. 'I have the godforsaken woman. She was the one I really wanted'.*] In 1.18 the

Table 11.2 Heliodorus' *Aethiopikà*, 1.9–18: The Knemon's Novella

	<i>Narrator</i>	<i>Tale (First/Third Person)</i>	<i>Narratee</i>
1st level	Primary narrator heterodiegetic	On the shore at the Nile's mouth, after the shipwreck and the arrivals of the marauders, in the night Knemon, Theagenes and Charikleia tell . . .	Extradiegetic: (the audience)
2nd level	Knemon (homodiegetic narrator), tells and introduces the subsequent narrators	Knemon's story, seduced by his stepmother Demainete	Homodiegetic: Theagenes and Charikleia *(but also reference to the extradiegetic narratees of the first level)
3rd level	Homodiegetic narrators a) Demainete (first person) b) Tisbes (first person) c) Aristippos (first person) d) Charias tells and introduces the subsequent narrators	The (false) harassment suffered from her stepchild Knemon Tells her plan Speech to the assembly The follow-up of Demainete's story and Knemon's exile	Homodiegetic: a) Aristippos, Knemon's father b) Knemon (homodiegetic) c) Assembly (homodiegetic) * (but also reference to the extradiegetic narratees) d) Knemon (extradiegetic) but the reference to Hesiod is at the same time addressed to the extradiegetic narratee (audience)
4th level	a) Demainete (homodiegetic) (first and third person) b) Tisbes (homodiegetic) (first person) who introduces the subsequent narrator	Direct referred speech about the events concerning Tisbes and Demainete	a) Tisbes (homodiegetic) b) Demainete (homodiegetic) / audience (extradiegetic, first level)
5th level	Aristippos (homodiegetic) (first person) answers Tisbes in her tale to Demainete who in turn tells her story	The reconstruction of the facts in front of the assembly	Assembly at Athens reference to the third-level narratee (Charias) and Knemon (second-level)
Return: the narration returns to Charias, then Knemon, and finally to the first extradiegetic narrator			

narration returns to Charias' level, then Knemon's and, at the end, to the extradiegetic narrator.

An important point to note here – besides the complexity of the structure, which does not go deeper than the fifth level – is that there are frequent connections

between different narrators and narratees at different levels: a kind of crossed interplay, with frequent reference to the audience. This feature brings weight to the idea that the embedded narrative, of this vertical type, needs the very attentive eye and direction of the author: it cannot be, therefore, the result of tales simply juxtaposed alongside one another.

In the Roman novel we can also encounter several examples of this type of embedded narrative. In Petronius' *Satyricon*, the *Cena Trimalchionis* episode serves as a frame which contains a few narratives ('the story of the unbreakable glass', 'the Werewolf and the Witches'), while the best known story of the *Ephesus*' *Widow* is told during the sailing on the Lica's ship. Particularly rich is the *Golden Ass* by Apuleius, which frames ten different stories, among which we find the famous 'Eros and Psyche', occupying the very heart of the work.³¹

In the examples cited from the Classical tradition, a number of regularities seem to be in operation; one is the 'rule' of the fifth level. According to this 'rule', the embedded narratives can reach, at a maximum, a fifth level of depth, not more.³² The other one is the use of direct speech by the hero in an embedded tale.

Comparisons

We can now make a comparison between the Indian and the Greek traditions of the novel. Information about the *kathā* can be gathered from the *Kathāsaritsāgara*, which is only a late re-elaborated version and which merges and incorporates previous works (at least the *Pañcatantra* and the *Bṛhatkathā*). If we consider the latter ones (without the re-writing by Somadeva and without the general frame of the *Kathāsaritsāgara*), the two works actually contain as many as five narrative levels in depth. For example, the story of Naravahanadatta (one seventh of the whole *Bṛhatkathā*) contains the narrative of his adviser (Gomukha) which also nests other stories which in turn nest other stories, up to the fifth level.

Another similarity is that the tale referred by the narrator and inserted in the frame is in the first person, so that the 'embedded narrator' speaks about his first-hand experiences. Also, according to Photius' summary of the *Marvels* by Antonius Diogenes, the narrators refer to their first-hand experiences. Moreover it can be noticed that only one embedded narrative of Xenophon of Ephesus is made by Aegialeus in the first person. In Achilles Tatius, Clitophon, the protagonist-narrator of the secondary level, speaks in the first person, since the primary narrator (the first-person voice) claims to have heard his tale from Clitophon. In turn, Clitophon, when he refers to tales of other character-narrators, uses direct speech. Apart from the tale of the lion and the mosquito (2.21), where the dialogues are in direct speech, and the dreams, *ekphraseis* and letters, the other embedded narratives are told by a protagonist who experienced first-hand the stories he or she tells.

In the *Aethiopikā* by Heliodorus, the embedded tales are told first-hand by a narrator using the first person; exceptions are the letters, again the *ekphraseis* and the tales of secondary narrators, that play a very limited role in the story. The narrator is not omniscient and does not know more than the speaking character (i.e. has a restricted point of view). The same 'rule' of the first person also seems

to have been followed in the *Mylesiakà* by Aristides, which we do not know directly.³³ According to the Ovidian *Tristia*, we can also argue that the *Mylesiakà* had a nested structure. For instance, the expressions ‘*inserere iocos*’ (*Tristia* 2.413) and ‘*iunxit carmina secum*’ (2.443) can be interpreted as the insertion of tales within tales (cf. Apuleius *varias fabulas conseram*, *Met.* 1.1).³⁴

In the past, scholars have discussed the question of antecedence as regards the Indian *kathā* and Greek novel. For Lacôte, the Indian novel precedes the Greek one, but his argument is actually weak, because, although it is true that the Indian *kathā* can be dated back to centuries before the written Sanskrit re-elaboration, we do not have any fixed reference to make a comparison with the Greek tradition, which also attested to the presence of embedded narratives in the works of ‘Homer’ and Plato.³⁵ If the Indian tradition can refer to a long oral tradition, the Greek can as well. So it is not possible to demonstrate who was the *πρῶτος εὑρετής*. Pisani, on the other hand, tries to demonstrate the opposite, but his attempt also has no strong proof.³⁶ It is true, however, that the two features (heroes who refer to their stories in the first person in the framed narratives and the complex structure of the embedded tales) cannot be a fortuity, born independently from the two cultures.

Conclusions

In the preceding review of the Greek novel and the Indian *kathā*, a number of interesting features stand out, which likely have implications for the nature of cross-cultural engagement between the Mediterranean and South Asian worlds. The first point to note is that both the Greek novel and Indian *kathā* share the distinct feature of embedded narratives (in the vertical or hierarchical form), in which embedded tales are reported in the first person by the character who has experienced the events he or she tells. This feature is still not considered a general feature of the Greek novel, wrongly in this author’s opinion.

A second feature is the ‘rule’ of the five narrative levels maximum, which we can define as the ‘narrative sustainability’.³⁷ Along with the first feature, this may provide evidence of contact between the written versions of both the Greek novel and *kathā*. Contrary to the fable, which was transmitted orally from one culture to the other, the novel and the *kathā* should have had a deeper contact, passing through translations and therefore through the medium of literate people. The novel (in both traditions) is bound to the medium of prose and to the use of writing, which plays a role in the composition and transmission of the text, but could still be replaced by the orality of the performance.³⁸ In the Greek world, a significant development in writing happened in Hellenistic and Roman times (the age of the spread of writing and the age of the flourishing of the novel), whereas in the Indian world, the polarity of orality-literacy has a vaguer profile.

The vertical structure of the embedded narratives and the interplay among the narrators and narratees at different levels requires authorial oversight and superior organisation, as opposed to the ‘au pair’ tales nested and juxtaposed in a frame (as in Boccaccio’s *Decameron*) which can be easily and infinitely added to

at the main frame. The ‘narrative sustainability’ and the first-person narrator can be therefore considered evidence of the author’s oversight.

Drawing upon this last point, it is possible to argue that embedded narratives in the work of Heliodorus (who does not have other parallels in the corpus of the Greek novel for this vertical structure besides Antonius Diogenes) probably represent a recovery of an original feature, which is not so evident in the work of the novelists that preceded him. Also, the more consistent presence of the references to India in his work might lead us to posit the development of a deep level of ‘cultural exchange’ (at least in this literary sphere) between Indian and Greek cultures at the time of Heliodorus.

A third point that needs to be noted is that it is not possible to find any evidence to establish the ‘inventor’ of the novel/kathā. There are no texts which can be dated with certainty. It can be said, for instance, that Guṇāḍhya can be co-located in the second century BCE, but embedded narratives are also present in Plato and Homer, although they belong to different genres. Also Antonius Diogenes can be co-located around the second CE. Instead of finding an impossible *πρῶτος εὑρετής*, we can imagine that there was an Indo-Greek cultural and commercial *koinè* which was guaranteed by the *Pax Romana*, around the first and the second century CE.

Notes

- 1 See Paratore (1942): 48.
- 2 See also Herodotus (4.195) and Ktesias’ *Indikā*.
- 3 Olshausen (2014): 153ff.
- 4 The mention of Ethiopia as part of Eudoxus’ later attempts to voyage to India (Strab. 2.3.4) emphasises the role of this land in the ‘circumnavigation’ of Libya (Africa) in the ancient sources. The direct relationship between India and Ethiopia, attested by Heliodorus with the mentions of Gymnosophists can be also recalled.
- 5 Cf. ‘(Eudoxus) put music-girls on board’ (Strab. 2.3.5) ἐμβιβάσαι τε μουσικά παιδισκάρια. In Petronius’ *Satyricon*, the tale of *The Widow of Ephesus* is told during the navigation.
- 6 On development of the term *Yavana*, see, Ray (1998): 312; Ball (2000): 126, 131. Additionally see Baldissera (2014): 6, n. 17.
- 7 Reardon (2008): 650–654; and Wolohopjian (1969).
- 8 On Indographic literature see Parker (2008).
- 9 Already the *Dialogue between Alexander and the Gymnosophists* (first century BCE) attests to the importance of this priest-caste received by the Greeks. See Adrados (1999): Vol. 1, 546 ff.
- 10 For the Greeks as inventors of the flying machines, see Walker (1968): 535–537.
- 11 See Buiteben (van) (1974): 198–211.
- 12 Lacôte (1911): 250.
- 13 Narayan (1989): 88–112.
- 14 *Kāvyādarśa* I, 24. The text follows: ‘Sequence of words which do not fall into (metrical) feet is *Gadyam* (prose). Its sub-divisions are two, Akhyayka and kathā; of the two one is put in the mouth of the hero alone; the other maybe be put in the mouths of others also’. In the following passage (I, 28) Dandin admits that kathā and Akhyayka form the same class. So the ‘rule’ of the hero telling his adventures in the first person might have passed from one to the other narrative form.
- 15 Lacôte (1911): 254.

- 16 The presence of the *kathāmukka* can be noticed also in some Greek novel. See Achilles Tatius (at the beginning of the novel), Heliodorus (at the end), and Chariton (at the beginning).
- 17 According to Vivanti, the *Bṛhatkathā* read by Somadeva could probably be a Kashmiri redaction, which contained many different texts, not comprised in the original tradition. Recent studies tend to a more ancient date for the origins of the *Bṛhatkathā*. See Vivanti (1993): LIX. See also Barth (1973): 1–6.
- 18 Moreover, at the beginning of the sixth *lambaka*, it is said that the narrator from there on becomes the protagonist himself, Naravahanadatta. But actually the new narrator keeps telling in the third person. So this could be, formally, a new narrative layer. This happens maybe because it explains a ‘narrative hole’ from the birth of Naravahanadatta up to his eighth year, or maybe just for sake of complication!
- 19 Baldissera (1993): XXIII.
- 20 Baldissera (1993): XX–XXI.
- 21 For the motive of the lion skin, see Adrados (1999): vol. 3, pp. 259–261; Luria (1934): 447–473. Sometimes it is not possible to establish whether the common motifs are a loan or simply the presence of common motifs among different cultures; see Keith (1928): 356.
- 22 Buiteben (van) (1974): 198–211.
- 23 *Kāvyaśāstra* I, 15–19: a list of the topic elements of the plot, very similar to the elements of the plot of the Greek novel.
- 24 Adrados (1999): vol. I, chap. 4, 287–293. See also Graverini, Keulen and Barchiesi (2006): 48: ‘la circolazione non letteraria di materiale novellistico . . . oltrepassava facilmente le barriere di lingua e civiltà. Questo fa sì che ci si trovi talvolta di fronte a inattese somiglianze, nelle linee narrative, tra alcune parti dei romanzi antichi e storie contenute nelle *Mille e una notte* o nelle raccolte dei fratelli Grimm.’
- 25 Or ‘récit emboîté’, ‘zyklische Rahmenerzählung’, or ‘racconto concentrico’.
- 26 An embedded narrative in the Ephesian Tale of Anthia and Habrocomes is the story of Aegialeus and Telxinoes. The question of the epitomisation is still debated. See Graverini, Keulen and Barchiesi (2006): 85.
- 27 *Leucippe and Clitophon*: Sostratus’ letter – 1.3; the death of Charicles – 1.12; the etiological tale at a wine feast – 2.2; the fable of the lion and the mosquito – 2.17; the two Menelaus’ tales – 2.34 and 3.19; the Cherea’s tale (4.15) and the Clinia’s tale (5.9); the story of the prison mate – 6.3; Leucippe’s explanation of the *Scheintod* – 8.16. The dreams (1.3; 2.11; 2.23; 4. 1) and the ἔκφορασις (2.3; 3.6; V, 3 > 5.3) offer the occasion of an embedded narrative.
- 28 See Table 11.2: the embedded narratives in Heliodorus.
- 29 Hes., *Op. et Dies*, 197–200.
- 30 *Ilias* 6.202.
- 31 The story of Aristomenes, Socrates and the witches – 1.5–9; the story of Teliphron – 2.21–30; adventures of bandits and magic love stories (book 4); the tale of Charites – 8.1–14; comic-realistic stories – 9.5–7, 17–21, 22–28; stories of adulteries – 10.2–12, 23–28.
- 32 Zunshine (2006): 28–29.
- 33 Also the *Mylesiakà* were told in the first person by Aristides, see Pepe (1967): 67, and Lucas (1907): 16–35.
- 34 Pepe (1967): 60, 72.
- 35 See Palone (forthcoming).
- 36 Pisani (1940).
- 37 I owe this definition from the Sanskritist Vincenzina Mazzarino.
- 38 Palone (forthcoming).

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12 Conclusion

Matthew Adam Cobb

The preceding chapters have sought to place the study of the Indian Ocean trade in Antiquity in a wider historical context. The focus has not been confined to the sphere of economics, but also sought to encompass the direct and indirect impact that this trade had on various societies in wider social, political and cultural terms. The Finley-esque ‘primitivist’ view which sought to marginalise the significance of long-distance exchange (asserting that markets were fragmented and weak, and that goods traded over long distances were superfluous luxuries consumed primarily by a narrow set of elites) needs serious reconsideration in light of the new perspectives that the Indian Ocean trade can offer us.

It is clear that in the period from 300 BCE to 700 CE, the Afro-Eurasian world was becoming increasingly interconnected, with a whole series of local, regional and intercontinental networks allowing for the movement of goods, peoples and ideas across vast distances (see the chapters of Cobb, Gregoratti, Ray and De Romanis). The results of these interconnections manifested themselves in various ways. Goods produced in different parts of the Afro-Eurasian world became increasingly available, both geographically and socially (diffusing down the socio-economic ladder), as Schneider’s chapter demonstrates (Chapter 7). The existence of these trade links could also be quite important for state finances, as McLaughlin has argued in the case of the Roman Empire (Chapter 6). Furthermore, state policy could be influenced by these commercial links (among other factors), such as the degree to which the Arsacids allowed for regional autonomy or attempted to restrict it, as they felt best suited their interests (see Gregoratti, Chapter 3).

The Indian Ocean trade, along with other exchange networks, facilitated the expansion of conceptual horizons, though very often within the cultural framework of a particular society. As Sánchez Hernández has shown in his chapter on the Roman and Greek novels, new mercantile information, and products deriving from Arabia, India and China, were readily integrated into previously developed notions of the East. Moreover, even long-standing cultural phenomena (originating in periods which pre-date the chronological focus of this book) – such as aetiological creation myths and literary themes and techniques, viz. elaborate narrative structures – did not remain ‘culturally immune’ to outside influences (see Mitchell’s Chapter 9 and Palone’s Chapter 11). In fact, in the case of South East Asia, commercial and cultural exchange with India during the first millennium CE had a

marked influence on literary, artistic, architectural and religious developments (see Asher's Chapter 8).

These examples are but one part of a rich and varied perspective that the study of the Indian Ocean trade in Antiquity can provide us when it comes to understanding political, cultural and economic developments within various societies. It is hoped that this book will be part of a series of studies that expand our understanding of these interconnections in the Afro-Eurasian world. More work, in particular, needs to be done to further integrate East Africa and South East Asia into such studies.

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